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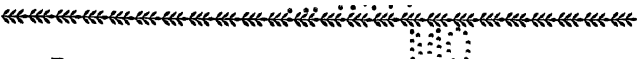









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PROGRESSIVE EDUCATION ASSOCIATION PUBLICATIONS  
Commission on the Relation of School and College



*ADVENTURE*  
*IN*  
*AMERICAN EDUCATION*

Volume V  
Thirty Schools Tell Their Story

■

ADVENTURE IN AMERICAN EDUCATION

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Volume I

*The Story of the Eight-Year Study*

by  
Wilford M. Aikin

Volume II

*Exploring the Curriculum*

The Work of the Thirty Schools  
from the Viewpoint of Curriculum Consultants

by  
H. H. Giles, S. P. McCutchen, and A. N. Zechiel

Volume III

*Appraising and Recording Student Progress*

Evaluation, Records and Reports  
in the Thirty Schools

by  
Eugene R. Smith, Ralph W. Tyler  
and the Evaluation Staff

Volume IV

*Did They Succeed in College?*

The Follow-up Study of the  
Graduates of the Thirty Schools

by  
Dean Chamberlin, Enid Straw Chamberlin  
Neal E. Drought and William E. Scott  
Preface by Max McConn

Volume V

*Thirty Schools Tell Their Story*  
Each School Writes of Its Participation  
in the Eight-Year Study

■

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of  
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ADVENTURE IN AMERICAN EDUCATION VOLUME V

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THIRTY SCHOOLS  
TELL THEIR  
STORY

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PUBLISHED BY HARPER & BROTHERS

New York and London



THIRTY SCHOOLS TELL THEIR STORY

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The Progressive Education Association  
the Commission and the Schools  
gratefully acknowledge their indebtedness  
to

CARNEGIE CORPORATION OF NEW YORK

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for the funds which made this Study possible

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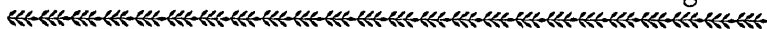
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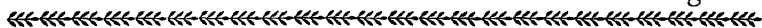
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| Bronxville High School, Bronxville, N. Y.                   | Miss Edith M. Penney                                  |
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| Dalton Schools, New York, N. Y.                             | Miss Helen Parkhurst                                  |
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| Des Moines Senior and Junior High Schools, Des Moines, Iowa | (*R. C. Cook) J. E. Stonecipher                       |
| Eagle Rock High School, Los Angeles, Cal.                   | Miss Helen Babson                                     |
| Fieldston School, New York, N. Y.                           | (Herbert W. Smith) (Derwood Baker) Luther Tate        |
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| George School, George School, Pa.                           | George A. Walton                                      |
| Germantown Friends School, Germantown, Pa.                  | (Stanley R. Yarnall) Burton P. Fowler                 |
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| Milton Academy, Milton, Mass.                               | W. L. W. Field  |
| New Trier Township High School, Winnetka, Ill.              | Matthew P. Gaffney                                    |
| North Shore Country Day School, Winnetka, Ill.              | Perry Dunlap Smith                                    |
| Radnor High School, Wayne, Pa.                              | Sydney V. Rowland, T. Bayard Beatty                   |

<sup>1</sup> Many changes in administration occurred in the schools during the period of the Study. Such cases are indicated by names in parentheses given in chronological order of service.

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| Wisconsin High School, Madison,<br>Wisc.                        | (H. H. Ryan) (Stephen M. Corey)<br>(Gordon Mackenzie) Glen G. Eye |



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contribution of this Study may be to the advancement of education, it is the product of the minds and hearts of faithful teachers who have labored unceasingly to find better ways of serving American youth.

WILFORD M. AIKIN

## INTRODUCTION

*Thirty Schools Tell Their Story* is the last of the five volumes reporting the Eight-Year Study (1933-1941), conducted by the Commission on the Relation of School and College of the Progressive Education Association. The purpose of this Study was to find out whether the traditional college entrance requirements and examinations made any difference in success in college, and what secondary schools would do if these requirements and examinations were abandoned. To this end about three hundred colleges and universities agreed to accept or reject the graduates of thirty secondary schools on the basis of records of their development submitted by the schools, without reference to the usual requirements and examinations. A study of their success in college, broadly defined, was made by a staff of college personnel officers. In twenty-five representative colleges which enrolled the majority of the graduates of the Thirty Schools, each graduate was matched with an equally good student of the same age, sex, and race, who came from the same type of home and community, who was pursuing the same field of studies in college, and who had met the customary entrance requirements. Graduates of the Thirty Schools did as well as the comparison group in every measure of scholastic competence, and in many aspects of development which are more important than marks, they did better. The further a school departed from the traditional college preparatory program, the better was the record of its graduates. Thus it was proved that the traditional college entrance requirements and examinations are no longer necessary to insure adequate preparation for college.

tion which the staff of curriculum consultants regarded as most significant. The present volume is intended to supplement and to support their observations by having each school give an account of its participation in the Study. It is in no sense a competing volume. There is a place both for a general picture of the direction in which secondary schools are likely to move when they are free to do so, and for a series of pictures of what each school was able to accomplish. There is also a place for the selection, emphasis, and organization of this experience in accordance with a unified point of view, and for a volume in which all points of view represented in the Study have their chance to be heard.

In reading these reports it should be kept in mind that the participating schools did not all bear the label "Progressive." Such a selection would not have given a true picture of what most secondary schools would do if college entrance requirements and examinations were abandoned. The Thirty Schools were selected as a representative cross-section of American secondary schools in which preparation for college was a major problem. They ranged in educational policy from conservative to radical. They represented every section of the country except the Southeast, where a similar study was carried on by the Southern Association of Secondary Schools and Colleges. Fourteen were public schools or school systems and sixteen were private schools. Since each of the public school systems included several schools, and since the public schools were larger than the private schools, the majority of the pupils in the Study were in public schools. Every type of community was represented, and every type of school in which a high percentage of graduates enter college. It was necessary, however, to select schools which had expressed a desire to make significant changes in their programs, and which had the staff and resources necessary to carry them through. Only such schools could reveal clearly, within the limited period of the Study, the probable effect on the curriculum of the abandonment of college entrance requirements and examinations. It should be remembered that the Study coincided with the depression, when financial conditions made it difficult for any school to take full advantage of the freedom granted by the

Study. Some of the Thirty Schools were somewhat better off than the average, but many of them had to meet severe financial curtailment. Therefore, there is every reason to believe that the changes they made are the sorts of changes which other secondary schools would make if college entrance requirements and examinations were abandoned.

It has long been recognized that these restrictions practically determine the curriculum of most secondary schools. Some have argued that the abandonment of these restrictions would greatly improve secondary education; others have argued that the result would be chaos, or insignificant tinkering with the curriculum, or no change whatever. The Eight-Year Study put these arguments to the test of experience. Thirty typical secondary schools did not have to meet college entrance requirements and examinations for eight years. The following reports tell what happened. They are not intended to shock or surprise, but to afford a basis for judging whether the abandonment of this control over the curriculum of secondary schools would be good social policy.

For this same reason the Thirty Schools never agreed to try out any single new program to replace the old one, and members of the Directing Committee and of the curriculum and evaluation staffs scrupulously refrained from exerting any pressure to promote experimentation in line with their views. Their sole function was to help each school to develop its own program. As individuals they might offer opinions, but the school was under no obligation to accept them. Each program was evaluated by its own staff in terms of its own objectives. Comparative studies of results were made only when schools requested them, only upon objectives which were common to several schools, and only among comparable schools. The evaluation staff was kept "on call" to assist teachers in securing evidence of growth for which no standard measures were available. Hence these schools were relatively free to make any changes in their programs which they considered desirable. Perfect freedom, of course, was never contemplated by the Study, for teachers, administrators, pupils, parents, pressure groups, and future professors still held views which had to be reckoned with, and the most readily available

materials of instruction favored the traditional program. The point at issue, however, was the restrictive influence of college entrance requirements and examinations. This influence was eliminated, and nothing comparable to it in the way of pressure from a Directing Committee or from a uniform program of evaluation was put in its place. If certain features of the resulting changes were common to many schools, this was because these features were "in the air" at the time, and not because any central group promoted them.

This same freedom was maintained when the schools submitted their reports in 1940. The suggestion was made that each report might well include a brief description of the school in its community setting, an account of the thinking underlying the changes reported, the story of the development of the changes in curriculum and organization which the staff considered most significant, a candid treatment of mistakes, failures, difficulties, and unsolved problems, and an evaluation of the program in terms of its objectives. The schools were warned that only about ten thousand words from the report of each school could be published, but they were encouraged to prepare as full a report as they wished, with the possibility of circulating it in mimeographed form among their clientele. A few schools limited their reports to ten thousand words; a few others made their own condensation of their full report; but most of the schools submitted an average of forty thousand words apiece and left the task of condensation to an editorial committee. The committee, they felt, would be in a better position to decide which sections of each report to exclude in the light of its knowledge of what was in all the other reports. If a certain type of development were best exemplified and most fully described by School A, the same type of development might be omitted, or passed over with a brief reference, in the report of School B, in order to save space for the unique contributions of the latter. This policy accounted for the bulk of all omissions from the reports as submitted by the schools. Nothing was omitted because any member of the editorial committee disagreed with it.

The committee was also forced to make one other type of omission which it sincerely regretted. The sections on evalua-

tion submitted by most of the schools proved to be too bulky to present adequately within the space limits and at the same time to give a readable account of the development of the program. In spite of persistent efforts to make them intelligible, they remained too technical to be understood by the average teacher, unless he were familiar with the instruments developed by the evaluation staff. It was also felt that these data would be of interest and value to relatively few readers, and that they had already served their purpose by giving the staff of each school a clearer idea of the effects of their new program upon the growth and development of pupils. Most of the sections on evaluation, therefore, were omitted, but considerable portions of the data submitted by the Altoona Senior High School (to represent a large public high school in a community hard hit by the depression) and by the Francis W. Parker School in Chicago (to represent a small, progressive private school) were retained, in order to show what kinds of evidence of progress were submitted. Similar data were included elsewhere when they were needed to illustrate or to verify some point of interest in the school's program.

The editorial committee also reserved the right to call to the attention of any school staff such portions of its report as it considered inaccurate, untrue, or unwarranted, in the light of the intimate knowledge of each school developed by the staff of consultants. It proved unnecessary, however, to exercise this right. The reports were surprisingly temperate in their estimates of success and candid about mistakes and failures. The committee feels no hesitation in affirming that these reports, to the best of its knowledge and belief, present the truth, the whole truth, and nothing but the truth.

The only other changes made in the reports submitted by schools were the elimination of as much educational jargon as possible, the deletion of the less interesting sections, and the regrettable omission of most of the paragraphs that were intended to give well-earned recognition to hundreds of devoted teachers who gave their life's blood to the success of the Study, but whose contributions were not sufficiently original or far-reaching in their implications to justify publication in these crowded pages. With these exceptions the reports were printed as the schools



wrote them, with no effort to secure uniformity of style, content, or point of view. They were regarded as evidence of what secondary schools would do if college entrance requirements and examinations were abandoned, and every precaution was taken to prevent any significant distortion or suppression of the evidence.

The reference to the "thirty schools" of the Eight-Year Study in the title of this volume, in this Introduction, and elsewhere may puzzle the reader who counts these reports and finds that there are only twenty-nine. The explanation is that one of the thirty, Pelham Manor, became so deeply involved in the Regent's Inquiry in New York that it felt unable to do justice to two studies simultaneously, and withdrew with the consent and approval of the Directing Committee in 1936. By this time the "thirty schools" had become so strongly identified with the Eight-Year Study that it was unwise to begin talking about twenty-nine. There never were exactly thirty schools anyway, for some of the public school systems, which were counted as one, included as many as fifteen separate schools. Hence "thirty" in this context has become a label to identify a group of schools which engaged in one of the most important educational experiments of our generation, and it has lost whatever mathematical significance it once possessed.

It is hoped that these reports may be of interest to at least five types of readers. First and foremost are classroom teachers in secondary schools, who may find in these pages many suggestions which they can use in their work. Members of the editorial committee who were also heads of schools found that while these reports were in their possession, they were continually borrowed by teachers who combed them for suggestions relating to their work. Core teachers wanted to find out how the core was handled in schools similar to their own, guidance officers looked up their provisions for guidance, and so on. Administrators, supervisors, and school board members who wish to keep their schools abreast of the times may find these reports useful for a similar purpose. Parents may use the volume to gain a better understanding of current tendencies in secondary education. Students and teachers of education in teachers' colleges will find these reports one of

their best sources of reliable information on what is going on in secondary schools, what changes are likely to come about in the next decade, and what sorts of problems will confront prospective teachers. Finally, and overlapping all the former classifications, educational statesmen of every sort need to take these reports into account. These are the sorts of changes for which secondary schools, long dominated by college requirements, are now ready. This is approximately what would happen if college requirements were more generally and permanently abandoned. Whether one likes these changes or not, they are facts to reckon with. We have talked a long time about what secondary schools would do if the colleges would let them. This is what happened when the experiment was tried.

PAUL B. DIEDERICH



THIRTY SCHOOLS TELL THEIR STORY





## ALTOONA HIGH SCHOOL

ALTOONA, PENNSYLVANIA

Altoona is a city of 90,480 inhabitants, located 35 miles southwest of the geographical center of Pennsylvania, in a fertile valley between two mountain ranges. The city is situated on the four-track main line of the Pennsylvania Railroad, 114 miles from Pittsburgh on the west and 235 miles from Philadelphia on the east. The city is also located on the William Penn Highway, the important east and west route through the state, and on the Horseshoe Trail, a highway of rapidly increasing importance, which runs north and south.

Altoona was incorporated as a borough in 1858 and as a city in 1865. Each succeeding decade has shown a healthy growth. Almost 60 per cent of the families own their own homes, a record of which the city is very proud. There are comparatively few apartments in the city.

While it is rightly known as an industrial city, Altoona is remarkably free from lower classes of workers which in many cities form slum or foreign sections. Altoona has scarcely a trace of such segregation.

There are thirty public school buildings in Altoona, including two junior high schools, one senior high school, and a junior college. The total senior high school population is 4,509. Of this number, 3,961 attend the public high school and the remainder the Catholic high school. Ninety-nine per cent of the youth of secondary school age in the community attend regularly. One per cent is employed half-time or more outside of the schools. Of the school population, 91.9 are native white, 7.3 foreign-born white, less than 1 per cent Negroes, and the number of Orientals or Indians is negligible.

The city has a total of one hundred churches, with practically every denomination represented. With the very full complement of churches goes a well-developed religious life in the community.

The great, dominant industrial phase of Altoona's life is, of course, in the immense shops of the Pennsylvania Railroad Company. These shops, many units of which are the largest of their kind in the world, give steady employment to approximately 16,000 men. These men are paid annually about \$27,000,000 in wages, and produce and repair equipment to the value of \$70,000,000. Because of this great industry Altoona is often referred to as the city of one industry. Other things made in Altoona are silk, working garments, confectionary products, cigars, meat-packing products, and paper products. Altoona has two silk plants.

Altoona has a city library housed in one of the junior high schools, but library facilities for the city and for the schools are pitifully inadequate.

The city has almost 75 acres of parks and playgrounds within its limits, or adjacent to the city. It has no museums, art galleries, planetariums, botanical gardens, or zoos. It has no operas, no playhouses for dramatic presentations. It has 11 movies and a Jaffa Mosque with a seating capacity of over 4,000.

The cost per pupil in the Altoona High School is \$103.87 a year. This ranks low in comparison with other districts in the state. The taxable wealth per child is \$17,800, which is also low.

The teaching load in the school is unusually heavy. With a very few exceptions, every teacher teaches six 50-minute periods a day, has a home room group, and sponsors a club. School opens at 8:15 A.M. and closes at 3:20 P.M. with a 25-minute lunch period. Most teachers have an average of 200 students a day. These students, because of the size of the school, are grouped according to ability. The following table gives some indication of the range in intelligence:

|       | <i>Mental Ability</i> | <i>Number of Pupils</i> | <i>Tests Used</i> |
|-------|-----------------------|-------------------------|-------------------|
| Range | 115 and over          | 690                     | Otis              |
|       | 105-114               | 1,058                   | Kuhlman-Anderson  |
|       | 95-104                | 1,063                   | Henmon-Nelson     |
|       | 85-94                 | 760                     |                   |
| Below | 85                    | 199                     |                   |

The members of the faculty of the Altoona High School believe that, while education must cherish and pass on the heritage and democratic traditions of the past, it must be adapted to the ever-changing conditions of the social order in which we live. Our school democracy should hold in high esteem the dignity and worth of the individual and should emphasize the development of his finer qualities. Our school democracy is a society in which individuals are increasingly interdependent as the group and its interests enlarge.

We believe that the interests, abilities, and needs of youth should be the controlling factor in determining the activities and policies of the school. We believe that it is the privilege and duty of the faculty, students, and community, in cooperation, to find and nurture the best in each individual; to guide him in establishing personal relationships that are satisfying, both to himself and to his associates; and to lead him through a normal development which enables him to understand and appreciate the privileges and assume the responsibilities of our democratic way of life.

### *Objectives*

Our objectives are to enable the pupils:

1. To evaluate and appreciate the democratic tradition.
2. To acquire such knowledge, skills, and aptitudes as are necessary for life in this modern day.
3. To establish a fundamental basis on which to build economic independence.
4. To attain and maintain high standards of health.
5. To widen interests leading to the discovery and development of individual potentialities.
6. To cultivate a happy and effective home life, to choose friends wisely, to cooperate cheerfully in worthy group activities—in short, to live and work and play together.
7. To develop worth-while insights, attitudes, tastes, appreciations, and habits necessary to conserve and expand democratic values.
8. To face squarely the problems that arise in everyday liv-



ing and to work out their solutions with an intellectual and emotional balance.

The first group of pupils to enter the Eight-Year Study was chosen from the ninth grade on the following basis: junior high school record (upper tenth), intelligence quotient, teacher recommendation, parental consent. The work of these people in the first few years was based on the results of the Carnegie Pennsylvania Study. The idea back of the experimentation was to see how much increase could be made in the amount of subject matter learned.

Beginning in the fall of 1936, experiments were started with classes having average junior high school records and average I.Q.'s. The first class in this experiment was chosen from as wide a social background as it was possible to secure. Students from wealthy families of the city, from the poorest families, Negroes, Jews, Italians, and others made up the personnel of the group.

These people were entrusted to three teachers. These teachers had three primary objectives in their work—character training, social sensitivity, and improvement of reading ability. The teachers kept them through three years of high school courses. They were constantly tested through the high school course: psychological tests, reading tests, and various tests furnished by the Progressive Education Association. A control group, chosen at the same time and on the same basis, had a slightly better record in previous test results and in junior high school records. At the end of their three years in high school a comparison of the two groups was made. The experimental group was two years ahead of the control group in reading ability as tested by the Iowa Test. The record of high school work outside of experimental classes placed this group on the average in the second fifth of the class, while the control group fell into the third fifth. The experimental group participated in all extracurricular activities of the high school, both those in which places were secured by some merit system and those in which students were elected to membership. Only three members of the control group were in any of these activities.

Results of the standardized mental tests showed that the ex-

perimental group ranged from 95 to 104 at the beginning of the study and from 94 to 126 at the close of the study. The control group had the same range at the beginning of the study and ranged from 92 to 112 at the close of the study. More groups following the same general plan have been organized in the classes succeeding this first group. Similar results have been obtained thus far.

### *The Unified Social Studies and English Group*

The course in unified social studies and English was begun in the autumn of 1934 with a specially selected group of tenth grade students from the upper intelligence bracket. These students took the required course in world history in the tenth grade and the course in American history during the eleventh grade. The English course was modified, however, to provide a closer coordination between literature of the periods studied than is customary in the traditional course. Students, for instance, studying the Civil War period of American history read such fiction as MacKinlay Kantor's *Long Remember* and Stephen Crane's *Red Badge of Courage*. They also read pertinent biographies and all available source materials, which gave them a deeper understanding and appreciation of the culture of that period of American history. Such appreciations were further developed by introducing music, drama, costume design, etc., into the course of study. This broadening of student experience developed a more comprehensive background than results from the traditional presentation of these subjects. Students learned the basic relation between a developing culture and its artistic and literary manifestations. During the senior year the regular senior course in problems of democracy was combined with a study of world literature. Such social writers as Anatole France and Gorki were studied, and the problems they suggested were made the springboard for an attack on the solution of those problems. As an example, France's *Crainquebille* is the story of a man unjustly imprisoned. That led into an examination of the legal system. One of Gorki's tales told about three men dying of hunger, which led into the problem of minimum food requirements, budgets, wages, government relief, etc. The stimula-

tion for the attack on such problems was powerful because it came from great literary figures who were masters of the art of persuasion. Ibsen's *Enemy of the People*, because it deals with the question of an individual who was right flying into the face of a society which was wrong, reveals one of the gravest problems of democracy: the mob instinct which can rule the majority.

The grammar necessary to the high school student was studied functionally: through reports on reading, oral presentations, and the like, examining errors as they occurred.

Results of this program were rather intangible. One thing showed up in the objective evaluation of these students. They got more out of their reading than other students, probably because they "read with a purpose" and because they had a greater appreciation of the background of the literature they studied. The range of subject matter of unassigned books they read also was greater than that of the average high school student.

This program was discontinued with the graduation of this one group. The core program, which was broader and dealt with more fundamental objectives, took its place.

The class entering in the fall of 1937 was the first group in which experimentation followed new lines. With this group less emphasis was placed on subject matter under college entrance requirements and more emphasis placed on the arts and student interests. Complete information as to the program, types of tests given, and results as compared with a control group is available for this group of 100 students who were graduated in the spring of 1940. It was the first experimental group that the school was able to check against a control group following a traditional program. The tests that were given to the experimental group as sophomores were repeated by them as juniors and again as seniors. This gives a picture of growth for the three years. The same tests were given to the control group during their senior year. These results give a picture of end products of a traditional program in comparison with experimental work. The experimental group as sophomores were together for English, history, science, and mathematics. The four teachers concerned met regularly to discuss pupil needs and to plan work to meet them. As juniors the group were together in English and his-

tory. When they became seniors they were together in just one class, English.

### *A Voluntary Reading Program*

When the experimental program was introduced in the Altoona High School, the English Department was adhering strictly to a required reading list with formal book reports. The requirements were two book reports each semester for the sophomore and junior years, and three each semester for the senior year. These reports called for the name of the author, the list of characters, the plot, the climax, etc. Now they were replaced by informal group discussions, literary parties, impersonations, book clubs, and written recommendations of books for other students to use.

A day each week was designated as free reading day, when students could read books of their own choice. Only by knowing their interests could the teacher guide them to read better books. How they were guided in their choice of books is another story. We are interested now in knowing what this new freedom did for the reading program of the school. This can best be shown by getting a picture of the reading of the group that was graduated in June, 1940.

During the three years that these students were together they read a total of 5,472 books. They averaged 18 for their sophomore year, 23 for their junior year, and 20 for their senior year; or 61.5 each for the three years. The outstanding reader of the group read 46, 101, 109; or 256 books during her three years. Any teacher in the school would be proud to have read the same types of books. This same girl was a member of the Academy of Science, belonged to the Forum Club, belonged to the National Junior Story League, rode horseback, drove a car, danced, and attended all school socials.

There was a decrease in the relative amount of fiction read each year and an increase in the amount of nonfiction. An interesting outcome was that no one in the group read as few as the 14 books formerly required. They were reading because they wanted to.

The reading records for the experimental group were com-

pared with the reading records for the control group. The following table shows the average number of books read each year by each group:

|                    | <i>Grade</i><br>10 | <i>Grade</i><br>11 | <i>Grade</i><br>12 | <i>Total</i> |
|--------------------|--------------------|--------------------|--------------------|--------------|
| Experimental Group | 17                 | 26                 | 22                 | 65           |
| Control Group      | 7                  | 7                  | 6                  | 20           |

Many of the students in the experimental group, in listing the advantages and disadvantages of progressive education as they had experienced it, felt that the freedom to read according to their own interests and ability was one of the outstanding contributions of the experiment. The members of the control group were taken from 16 different English classes and their reading is therefore typical of the school as a whole. Last year the English Department went on record as favoring a free reading program for the entire school. We all feel that this is a definite step forward.

The English Department has also purchased 16 units of 40 books each. These are used for classroom libraries. Some sets were selected for students who needed easier material, others for the solution of problems that youth face, still others to correlate with work in courses already established. Classroom libraries have grown from 40 to 500 books in some rooms. Student committees have selected and bought books for their own rooms. Never again will students in the Altoona High School think of reading as forced labor.

### *The Iowa Silent Reading Test*

The Iowa Silent Reading Test was given to the experimental group when they were sophomores and again when they were juniors. It tests both comprehension and rate of reading, and includes sections on paragraph meaning, sentence meaning, word meaning, paragraph organization, and location of ideas. The median score for the tenth grade in public schools is 93 for comprehension and 29 for rate.

The experimental group as tenth graders had a median of 140 in comprehension, which is equal to the first-year college median.

Their median in rate was 32. Thirty-seven of the 93 students taking the test in the tenth grade exceeded the level of grade XIV in comprehension.

The established medians for the eleventh grade are 103 in comprehension and 30 in rate. The experimental group medians were 152 in comprehension and 35 in rate. Both are better than first-year college medians.

Fifty-nine in the eleventh grade were above the grade XIV level in comprehension, and 62 were above it in rate. Fifty-four of the 93 students increased their scores in comprehension and rate. Twenty-one increased in comprehension only, and 12 in rate only. All students in the eleventh grade were above the median for their grade.

### *The Inglis Vocabulary Test*

"This test is designed to measure the student's knowledge of the Intelligent Reader's Vocabulary; that is, of those words which belong neither to our everyday vocabulary of commonest words, nor to special and technical vocabularies, but which constitute a large part of the educated person's vocabulary. It is designed primarily to test the student's reading vocabulary rather than his active vocabulary."

Form A of this test was taken by the experimental group at the beginning of their eleventh grade work, Form B at the end of the first semester, and Form C at the end of the year. At the end of the year 15 of the 89 eleventh grade students who took the test were below the eleventh grade standard, while 22 of them were above the college freshman level. Sixty-four of the 89 were above the eleventh grade level. Eighty-one of the 89 showed growth from the beginning to the end of the year. The class median increased from 80 to 93.5 which is considerably more than a year's growth.

### *The Shepherd English Test*

The Shepherd English Test is a placement test for college freshmen. It consists of four parts—reading, words, grammar, and literature. The test was given to all seniors in the school in January, 1940. The median for college freshmen is 88. The 89

students in the experimental group had a median score of 106 with a range in scores from 76 to 136. This group had no formal grammar taught to them during the three years that they were in high school.

The college preparatory group of 132 students had a median score of 89 with scores ranging from 47 to 135. For three years they had been given very definite training in formal grammar with college entrance examinations in view.

Fifty-five of the students from the experimental group were matched with 55 from the college preparatory group. The I.Q.'s of the two groups were identical. When matched in this way, the experimental group had a median score of 104 with a range in scores from 86 to 135. The college preparatory group had a median score of 92 with a range in scores from 66 to 119.

The whole experimental group had 79 of its 89 students, or 88 per cent, above the median for college freshmen, while the college preparatory group had 72 out of 132, or 55 per cent, above that median.

### *The Purdue Placement Test in English*

"The Purdue Placement Test in English is intended for use in both high schools and colleges. It is designed to measure abilities in punctuation, grammatical classification, recognition of grammatical errors, sentence structure, reading, vocabulary, and spelling." It was given to the experimental group at the end of their senior year.

The percentile norms for the test were calculated from the distribution of scores for 1,449 college freshmen. The median score for college freshmen is 129, while the median score for the experimental group is 180. Everyone in the group had scores above 137, or above 60 per cent of college freshmen. Twenty of them had scores of 199 or above, which was the upper 1 per cent.

This placement test verifies the results discovered in the Shepherd English Test. The results are most important in view of the fact that the group had no formal training in grammar. Thus one red herring was removed from the path of educational progress in Altoona.

*Number of Seniors Participating in Major School Activities*

| <i>Experimental Group, 100</i> | <i>Other Seniors, 1,000</i> |            |
|--------------------------------|-----------------------------|------------|
| Student Senate                 | 11                          | 5          |
| Academy of Science             | 13                          | 2          |
| Executive Committee            | 3                           | 6          |
| Home Room Representative       | 16                          | 50         |
| School Paper Reporters         | 8                           | 5          |
| School Paper Staff             | 4                           | 2          |
| School Yearbook                | 20                          | 5          |
| Student Handbook               | 7                           | 1          |
| Corridor Patrol                | 12                          | 20         |
| Traffic Patrol                 | 16                          | 30         |
| Athletic Council               | 1                           | 0          |
| Quill and Scroll               | 14                          | 4          |
| Home Room President            | 9                           | 15         |
|                                | <u>134</u>                  | <u>145</u> |
|                                | 103%                        | 14%        |

Of the 279 positions held by seniors in the major activities of the school that are listed above, 134 are held by members of the progressive group. Only 100 of the 1,100 members of the senior class were in this experimental group, which actually shows that 103 per cent of them held offices while only 14 per cent of the other 1,000 seniors held offices.

The same thing was shown at graduation time, when 49 awards were made for outstanding scholarship, citizenship, and character. Of the 49 awards, 27, or more than 50 per cent, were given to members of the experimental group. The other 1,000 students received 22 of the awards. The American Legion awards for character, scholarship, and citizenship, which go to the outstanding boy and girl in the school, went to members of the experimental group.

Scholarships awarded by colleges as a result of competitive examinations were all won (with the exception of one) by members of the experimental group.

*Further Study*

The same thing held true when it came to arranging for further study elsewhere. One hundred and sixty-seven of the graduating class of 1940 indicated their intention of continuing



their studies by securing their scholastic record from the high school office during the summer months. Fifty-four of the 167 were members of the progressive group, which meant that more than 50 per cent of this group were going to college while only 15 per cent of the entire graduating group were going.

### *The Core Curriculum*

In the fall of 1938 an experimental core curriculum was begun in the Altoona Senior High School with four sections of tenth grade students, a college, a commercial, an average, and a low group. This curriculum was designed to meet the needs of the students so that they might live happily in a democratic society. The teachers involved in the experiment felt it was their obligation to weld together all educational experiences, regardless of subject area, which would help the student to solve his immediate problems and contribute to his individual development. They hoped, in this manner, to interest the student in seeking and discovering solutions for his problems, by developing an inquiring mind, by applying scientific method, by developing accepted social attitudes, by improving reading and writing skills and study habits, and by assuming responsibility for his own growth and development.

"Everyday Problems," as the course was known, took two periods (50 minutes each) per day. This additional class time each day had many advantages in that short trips could be taken, one period could be spent in the library, or projects could be developed during school hours. In addition to this work, the student carried at least two or possibly three regular school subjects of his own choice. The typical sophomore program at this time was one period per day of English, history, biology, and one elective. The size of the core classes was 25 per cent smaller than that of the average high school class. The basis of eligibility for membership in these groups was intelligence quotient, achievement quotient, and citizenship. A free choice by the student with the consent of his parents was the final requirement for participation in this experimental program.

A group of four teachers, representing social sciences, natural sciences, home economics, and English spent one period per day

for a semester, analyzing the common needs of high school sophomores. For this analysis, we worked with three sophomore classes which we were teaching at the time, and used the *Report on Science in General Education* by a committee of the Progressive Education Association, plus our own previous experience. The following summer was spent at the Denver Workshop developing source units for the sophomore year. After the inauguration of the experiment, we spent one class period per day working and planning together. The release from our regular teaching program for one period proved invaluable to us. After careful consideration of student needs, the following units for the sophomore year were chosen: Orientation to the New School, Family Relationships, Consumer Problems, Communication, and Conservation of Human and Natural Resources. We realized that any of these units could easily be a year's work and could be studied on different levels but, owing to certain conditions in our school and our community, some phases would be particularly acceptable in the tenth grade. In the preparation of these units it was kept clearly in mind that these were not teaching units, but units from which the teacher could get suggestions for the development of those parts of the problem which met the needs of the students. Pupil-teacher planning, which played a very important role in this new type of work, gave the teacher the opportunity to set the stage and to be the director but not the dictator. Source units are only sources of suggestions modified to fit the local situation and submitted in the course of pupil-teacher planning when and if the situation calls for them.

At the beginning of the year each group was assigned to one of the four teachers. All sections worked out the orientation unit as the needs of the group required. In all groups the objectives for the year's work were selected by students. During the course of the year these aims were altered as new problems arose in the work, or the viewpoints of the students changed. At the conclusion of the orientation unit, after two and one-half weeks of school, each group continued with the same teacher, and the unit of the work delegated to her was started. At this time four tests (Iowa Silent Reading Test, P.E.A. Interpretation of Data Test, Scale of Beliefs Test, and Interest Questionnaire) were given so

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that at the end of the year we would be able to have some idea of what changes had taken place. The remainder of the school year was divided equally into four parts. When one unit was completed, the groups moved on to another teacher and began the unit delegated to her, and so on throughout the year. Thus each teacher taught the same unit, with modifications, to the four groups in succession, and each group changed hands four times during the year. This revolving program was not the ideal arrangement, since it gave the teacher too little time to learn to work with each group; but, due to the inexperience and insecurity of the teachers, it seemed to be the best way to begin.

If a problem arose which the teacher felt she could not cover satisfactorily, she was privileged to call into the classroom someone better able to handle the question. If there were field trips which would prove helpful to the study, they were taken. For example, the class visited a state tuberculosis sanitarium to learn what our state was doing in the field of community health; a lecture illustrated by lantern slides was given by the Manager of the Greenbelt Towns, Greenbelt, Maryland, to demonstrate the housing project that is in operation there; a conducted tour through the boys' and the girls' departments of a local store was taken to get some experience in the wise choice of commodities; and a lecture demonstration on radio was given by an instructor in the electrical shop of the high school to show some of the possibilities of radio as a means of communication.

At the end of the sophomore year the tests previously mentioned plus a few additional ones were given to determine what progress had been made toward the objectives that had been set up at the beginning of the course. The results of these tests were used for individual guidance and for planning the work of the eleventh year. Individual interpretations for each test were made and are on file.

Since the course was optional, a few students withdrew at the end of the sophomore year. Because of the absence of one teacher who had been engaged in the work and the smaller number of students participating, it was advisable to continue the program with three groups instead of four. Some scheduling difficulties

prevented the groups from being classified according to abilities and interests as was done in the tenth year. Again the groups met for two periods each day. They rotated through the areas in the same manner as they had during the tenth year. One class period per week was devoted to each of the following: arts and craft; discussion of current problems; and discussion and dramatic presentation of free reading, movies, and radio programs. An elective general science course was offered for eleventh graders in the core experiment who were interested in science but who were not taking specialized science courses.

The units of work to be studied during the eleventh year were decided upon after the consideration of several factors: first, a discussion by the teachers and the administrators of student needs and problems not taken care of in the tenth grade; second, the results of a questionnaire given to the students at the end of the tenth grade work; third, a conference with members of the Curriculum Staff of the Eight-Year Study. Democracy was chosen as the main theme for the work of the junior year. As a result, the following units of work were selected: home and community problems in a democracy, democracies versus dictatorships, life in the American democracy. How these units were developed, and what phases of each, depended on the interests and the needs of the different groups.

In accordance with the policy of calling into the classroom experts in various fields, the city solicitor addressed the students and explained court procedure. This was followed by a day spent in court to observe a trial. The excursion was concluded with a conducted tour through the county courthouse. Another experience of this type was a trip to Washington, D. C. All the plans and arrangements for this trip were made by the students who became interested in making such a trip after having taken imaginary trips over the United States. The high light of this trip was a visit to a session at both the Senate and the House of Representatives. A problem to encourage better use of leisure time included a trip to the Y.M.C.A. and the Y.W.C.A. buildings. Use of the clubrooms at the Y.M.C.A. for a party was the result of this trip. Later in the year the students began to make plans to

visit New York the fall of 1940 for the purpose of seeing the city and of going to the Fair. This trip was taken. One day was spent on a sight-seeing tour with an excellent lecturer.

Again at the end of the eleventh year's work the same series of P.E.A. Tests were given for comparative purposes. During the term those students who had last year fallen below the tenth grade reading level were retested.

Our first step in planning the work of the twelfth year was to make a list of student suggestions. These plus the problems revealed by individual guidance conferences led us to adopt the theme of problems after high school. The units for this year were home and marriage, vocations, and a review of everyday English. Whereas the core period had been two class periods for the sophomore and junior years, the senior year had one period for all and two for some, depending upon the desire of the students themselves and individual schedules.

A grading system was used which would enable the student to compare his present accomplishment with his capacity and direct him toward greater improvement. The grading system had two parts: first, a three-point scale on ten personality traits and on five reading and writing skills; second, a personal note to the parents on progress or weakness in the student's work. This blank also contained a section on which the results of tests were recorded. A similar blank was used for students to check themselves and to write criticisms or suggestions to the teacher on each area of work. Turn about is fair play; the students valued the opportunity to mark the teacher, and the course improved as a result.

### *Conclusion*

Every department in the Altoona High School has been affected by this new program. During the eight years that teachers and students have been working together, old courses have been revised and twenty new courses have been introduced to take care of new needs or new problems as they were recognized.

It is evident from the teachers' and students' reports that those chosen for the selected groups were most fortunate in having experienced a more democratic way of living in high

school. "Democracy is a Way of Life" not only for the adult but also for the adolescent. This new freedom has opened the way for new fields of adventure in education. Those who have been most closely in touch with the work, who have been stimulated and inspired by it, recommend extending it to include finally every teacher and every student in the Altoona High School.



participation by all in every possible vital phase; it involves careful definition of authority and a considerable division of authority. It is our fundamental conviction that there shall be no barred areas.

Our pattern is an expression of convinced Christian idealism. Both consciously and subconsciously we consider every aspect of our plans in terms of the ways of living enunciated by Christ, and we interpret the challenges of today in the light of Christ's teachings. We should like our graduates to be women who, living realistically in the world, understand and appraise it on the basis of wide and deep knowledge. We should like them to live their lives as conscious parts of the whole of the current world. We want them to be by temperament workers, and in particular co-operative workers. We want their spiritual lives to be so impregnated with a spirit of brotherliness that they will be concerned with the rights of others and with their own personal and social obligations. We should like them to be constructively critical, to be persons who, seeing and defining tendencies, decide rationally where they wish to apply the force of their lives. To achieve all this, the faculty of the school tries to live in this spirit, and—to the full extent possible at their age levels—the girls' way of living during the school years follows this pattern. If it is true, as some of us believe, that minds and hearts centered in social concern and social obligation are the crying need of the world today, that an overly acquisitive attitude is a poison infecting many aspects of public and private life, that ways of living consonant with the principles of Christian philosophy are soundly applicable to our complex contemporary challenges, we must work determinedly to set up in the limited area of school these specific ways of living.

The Baldwin School is more than fifty years old, and throughout its existence has always stressed the forward look of its students to further training after school. Of the class graduating in 1939, a typical group of 71 girls, 56 entered 18 different senior colleges, 11 entered 9 junior colleges, 4 went to no educational institution. These figures indicate among other things the fact that the girls choose their colleges thoughtfully and in terms of the interests that they wish to follow. There is no marked tendency toward any one or two colleges.



Despite the fact that almost all our students go to college, it is not necessary that a girl be outstandingly able in order to be happy and successful in the school. Many of our most successful students both in school and afterward are girls of average ability who through generous and cooperative natures contribute much to their group.

In the year 1939-1940 the school consisted of 378 students, 256 being day students, 122 boarders. Grades I-VII are entirely day students. The age level division is: Lower School (grades I-VI), 90; Middle School (grades VII-IX), 93; Upper School (grades X-XII), 195. New students are received at all grade levels; and while the Eight-Year Study curriculum applies in its entirety only to those in the school for three years or more, the spirit of it pervades the "old curriculum" group who are with us for only one or two years. We are one of the few schools in the group of Thirty Schools with a large boarding school. We do not select special students for the "new curriculum." All girls in the school three years or more are a part of it.

Our girls come to us from widely scattered, comfortably situated American homes. Though some of our students come from wealthy families, we are not a rich girls' school. Most of the fathers of our girls are actively engaged in earning the family income. Tests on attitudes given the students show the school population to be conservative in temperament. It is characteristic of the families that many begin early in a child's life to accumulate an educational fund to be expended on her school and college costs. A very considerable number have to make careful plans and some sacrifice to make possible this long period of education. Because of this fact, the school has had to meet many problems resulting from the depression. In 1939-1940 it had an annual budget of about \$350,000, of which only about \$5,000 was from income on vested funds. It has a carrying charge at the present time [1940] of \$17,000 on what is left from a debt incurred when the property was purchased and the schoolhouse built. It has succeeded in going through the depression without any operating deficit. These conditions have called for very careful management; they have meant that we have not been able substantially to increase the faculty, and have had to work out the new curriculum without increase of personnel.

Adequate qualification of the teaching staff is, of course, of major importance. A teacher must have had such training as to be regarded as an authority in her field. We do not permit a teacher, however skillful, to teach in a field that is not her specialty. She must have had sound professional training (or, in the case of the appointment of an older teacher, adequate experience). She must be competent to use wisely the flexibility permitted each teacher in the organization of her own work, for although class meetings are scheduled for fixed times, in groups not exceeding 15 students, each teacher is encouraged to use this time as she will, cutting down the number of group meetings, dividing the class into smaller groups, varying the activities of members of the group, or in any other way following procedures that are of value to the progress and development of the various students. She must have deep respect for young people; she must be generous in nature, eager to participate in many aspects of the school life besides her own special teaching field. She herself must be a person who lives her own life on an elevated plane.

Under present conditions we find that for our purposes young college graduates who wish to teach gain their best professional training under the apprenticeship plan for teacher training now in force in many excellent schools. We ourselves train yearly four or five young college graduates.

### Aims

Such is the general picture of the Baldwin School. As the students go through the school, we stress increasingly at each age level three general aims: a way of living in which all members share; a way of living in which the individual student's interests and development and unique personality are made the center of her course of study; and a way of living in which social concerns permeate all phases of her activity. The freedom of planning which the Eight-Year Study has given us has made possible the shaping of the total content of the curriculum so as to develop these three aims.

The first aim is exemplified in the total organization of the school. The board of directors consists of 17 members, of whom 1 is the head of the school; 2 are members of the faculty chosen by ballot by the faculty; 2 are alumnae chosen by the alumnae;

12 are men or women chosen, 3 each year, for a four-year term, by a committee, one member of which is a teacher chosen by the faculty. Some of these 12 always are parents of students. A college president, a college dean, and college trustees are among the members of the board; they bring to the service of the school their wide experience in problems of education. Faculty participation and responsibility are thus assured in the central management. Perhaps it is partly due to this sharing by the faculty in all aspects of the school and to a certain sense of security thus generated that the faculty turnover is small, and that therefore long-term planning can be achieved. At the time of the writing of this report, every department head, except one, was department head in 1933 and thus has shared in the entire growth of the new curriculum. The building and constant reshaping of the curriculum is a cooperative faculty enterprise, all members participating under the leadership of special committees chosen by the faculty.

The active participation of parents and of alumnae in the conduct of the school increases year by year. For example, groups of fathers cooperate in plans for visiting institutions and industries. The alumnae and former students, all of whom are kept in steady touch with the school through several news bulletins a year, are active in many of our enterprises.

In furtherance of our aim of democratic living we have made considerable progress in setting up joint committees of faculty and students to manage certain areas of school life. In each committee the girls are chosen by the girls, the teachers by the teachers. The most important committees are, of course, those concerned with student government. The most honored and responsible of the student government committees is made up of girls only. This committee sits as a court to consider cases of serious misconduct—either violations of important school law or repeated violations of minor law. It takes into consideration why a girl has made the mistake, how to help bring her into sympathy with the standards of the school, and how severe the penalty need be. It acts upon recommendations for changes in school rules, and it may also initiate changes in rules. Decisions of this committee must be ratified by the head of the school; it has worked out in practice that such ratification is practically never withheld. Frequently when a change in rules is suggested, the ques-

tion is referred to a special joint committee which studies the whole subject and reports its findings for action. Such a committee sometimes finds that a rather elaborate study is called for. A group, working in 1939-1940 on a highly controversial subject, found it necessary to draw up a questionnaire to be submitted to teachers and girls (the questions were framed under the guidance of a senior American history class) and then to make a statistical study of the results (under the guidance of a senior mathematics class) before it could make its report and recommendation. Real reflective thinking, pursued in a desire to reach a sound conclusion for the whole school, rather than an effort to make one's original opinion prevail, characterized this procedure. Such a process is very slow and laborious; the educational value of it is great.

There are three other standing student government committees; these are joint committees. One of these is the "representative assembly." Its function is to discuss any matter of school concern; it takes no action but refers the subject of discussion to the appropriate committees. This committee is large and changes often enough to give practically every girl a chance to serve on it each year. The other two are concerned with the orderly running of the school in the variety of minor matters that concern a social organism. These committees deal with the infringement of minor law (what might be called school misdemeanors) and when necessary apply penalties. The chairmen of these two committees (who are of course students) are members of the main committee. A system of student government with genuine responsibility is an old institution in the school; its vitality has been enriched during the years since 1933.

The Service League is one of the most important parts of school. All are members of it; the work is directed by a joint committee. Under the guidance of this committee the girls participate in a wide range of activities, visiting many institutions such as hospitals, social settlements, day nurseries, especially the Baldwin Day Nursery started years ago by the founder of the school, and working for these institutions, for the Red Cross, and for international relief agencies. These concerns are also interwoven with certain school courses as will be indicated later.

On all these joint committees faculty and students work on equal terms. There is no dominance of them by either older or younger members. Usually the chairman is a student.

In addition to the special committees which may be formed at any time, there are various standing joint committees—on the curriculum; on plans for interscholastic contacts (forums as well as games); on social activities; on school entertainments, lectures, concerts, and the like; on the organization and conduct of study halls; on buildings and grounds; on the library, etc. A new one has just been suggested for 1940–1941 on the religious life of the school. It is the intention that no girl shall serve on more than one standing committee; thus no girl is overburdened by committee work and the committees can all meet at the same time, thus simplifying the routine of school life.

The committees and the various clubs to be discussed later are time-consuming; we are sure that the values derived from them are real, and we regard them not as extracurricular but as a living part of the total educational experience. The girls of the ninth grade have a share in these activities; the girls in grades VII and VIII have simpler organizations suited to their ages, though they participate in the committees to the full extent of their maturity. The Lower School has a still different setup, similar in spirit but much simplified.

Our employees, who are Negroes, are loyal and interested in the school. Under their own planning they have established a choral group and a dramatic group, both sponsored by members of the faculty. The choral group has sung several times for the school, the program ending with singing by the girls and teachers with the employees. The dramatic club, recently organized, has given one play, a very successful one, at which teachers and girls and the friends of the employees were the guests.

In the philosophy of the school, the second chief aim is the recognition of the uniqueness of each girl. We think it important to know each of our students as well as we can, to try to discover her special interests and her needs, and to plan her total activities accordingly. It is individualization and not individualism which is the aim. The girl's own interests and development and her own choices become each year more significant in the determination

of the total picture of her life. Through the first nine grades all students carry the same course; the opportunity for individual responsible freedom is found within the frame of the regular course. Beginning with grade X, the girls select their courses in accordance with a plan to be described fully at a later point in this report. The principle of responsible choice applies to committee and club assignments. Each girl submits a list of committees which interest her, and the student committee on committees uses this list to the degree desirable as it draws up the committee memberships. Changes are made as the year advances, certain members being retained for the sake of continuity. The student government committees are not chosen by the committee or committees, but are elected by the girls. The full responsibility of choosing their main officers is theirs.

In the same spirit each girl selects the club that she would like to join—or is free with a group of suitable size to organize a new club. The number of clubs which a girl may join is carefully limited. It is expected that every girl will belong to one, though a girl who is not “club-minded” is not required to join one. The nature of the clubs varies widely, and the actual clubs set up vary from year to year according to the desires of the girls. They include musical, dramatic, foreign language, crafts, cooking, knitting, many sorts of hobby clubs. The important point about them all is that they are not exclusive; a girl joins the club which interests her.

Other methods of recognizing individual interests and needs are many. The teachers are encouraged to individualize assignments within a class group to the full degree practicable. In the casting of plays, done by the director of dramatics and a small group of girls, certain girls who especially need encouragement to self-expression are included in each cast. The girls make important announcements at school assemblies and are helped to learn how to make such announcements effectively. Here, too, constant effort is made to give this opportunity to girls who need the chance of self-expression. Of course frequent opportunity is given them to read or show their work to fairly large groups of the school, sometimes to the entire school.

The most important device for securing individualization how-

ever, is the work on long individual topics. In grades X, XI, and XII every girl has a considerable block of time set aside for this work, and in general does two or three topics a year. These are designed to sharpen a girl's consciousness of her own resources and to give her an opportunity to develop her own interests; they give her practice in doing sustained pieces of work which usually have the nature of elementary research.

In preparation grade X has six weeks of training in the autumn. Some time is spent in helping the class to orient itself (there are always a considerable number of new girls in it). In small groups, which afterward report to the whole class, they are introduced to the school library and to neighboring libraries—the Free Library of Philadelphia, the college libraries of Bryn Mawr, Haverford, and Swarthmore. They are given the necessary training in the use of a library, in note taking, in outlining and organizing definite pieces of material—the material being selected to give experience with different types of writing. When this period of training is over, another period of time is given to individual discussion with each girl on the topic that she has chosen. We urge the selection of subjects that require personal investigation, interviews with people, and work with one's hands. We like it when two or more undertake a joint project. For example, in grade X a topic on merchandising took a group of girls to several stores for close observation; a study of newspapers involved visits to newspaper plants. Another group worked together on the problem of furnishing an apartment on a limited budget. Topics of this type we have found particularly suited to this age level. In helping a girl choose a subject we are guided to some degree by the outcomes of the Interest Questionnaire which are discussed with each girl. This test shows our girls to have many strong interests in non-academic fields. It is hoped that topic work in these fields will help them to relate their work in classes to their topics and to see the value of all the subjects they are studying, as an essential background for their interests. When teachers find it possible to help a girl use her topic as the basis of her approach to a classroom subject, the girl may overcome a feeling of inadequacy and she often gains a sense of real achievement. In this program of guidance each girl has the help of her director of studies, who

directs the entire class, and also of a topic adviser who directs four or five girls throughout the year. It is not necessary that the topic adviser should be a specialist in the field of the topic. The scholarly training of any teacher in methods of research and her personal interest in the girls are the needed equipment. She does, of course, consult freely other members of the faculty. This adviser holds a very important post, for it is she who helps the girl make the best possible use of her time.

These topics are by no means always written reports. One girl chose to do manuscript illumination in the medieval spirit. Now a senior in college, she has carried on and developed this art until now she plans to make it, or some aspect of it, her profession. Of an entirely different nature is the construction of models. Many careful and beautiful ones, historical and current, have been made—of a lumber camp, a Roman house, a part of a medieval church, a typical drawing room of the eighteenth century. Important pieces of work have been done in music. An individual student first studied the order of the service in the Lutheran Church at the time of Bach, in reference to the place of music in this service—proceeding thence to work in the studio listening to excerpts from the cantatas, and playing at the piano the solo part of some of the arias from the *St. Matthew Passion* while her teacher played a piano arrangement of the supporting orchestral and organ parts. Parts of the *B minor Mass* of Bach were studied, and the culmination of the experience was attendance at a performance of the *Mass* given at a concert of the Philadelphia orchestra. Groups of students in a French class may write and present (of course in French) a little play characteristic of a given period. In such a presentation one girl especially interested in science impersonated a French scientist and performed experiments first made at this time; another in the person of a musician played a contemporary composition. Interesting topics have been done by girls from various sections of America originally settled by the French and still showing traces of their origin. Significant maps have usually been a part of these topics. One year two girls did topics on dynamic symmetry, one primarily from the mathematical point of view, the other from the artistic. An unusual section was "The Graphic Representation of Motion"



(grade X). One student who found mathematics difficult wrote and illustrated a delightful and amusing story about geometry for children. In 1937-1938 a group of girls surveyed the school grounds, making an accurate drawing of the survey their gift for the cover of our fiftieth anniversary program. Among the written topics, particularly interesting ones have been on such subjects as "English Wool Merchants and Clothiers," "Philadelphia Housing," "The Maine Coast in Literature"; a very significant one was a collection of examples of good and bad thinking ranging from a Supreme Court opinion to a vitriolic editorial. The range of subjects is as wide as the range of human interests. Sometimes the topic becomes the integrating center of a student's work.

In grade XII individual topics take a different form. They are connected directly with the courses the girl is taking. Using the experience she has gained in grades X and XI, she thus takes another step toward the long reports which will be so important a part of her work in college. Typical examples are a topic on child labor in America and one on occupational diseases, both done under the joint auspices of the history and science departments, one on crystals done under the science and mathematics departments. Rather unusually mature pieces of work have been done by the ablest girls.

One senior, correlating in a natural way her study of American history and of literature, wrote on *John Brown's Body*, by Benét, calling her paper "The Temporal and the Eternal." She pointed out that, through his narrative of the specific conflict, "Benét is illustrating time, history, and eternity. His characters are men whose lives are limited by time, who are therefore completely temporal. His history is of the Civil War, which is recent enough to be remembered, but not for long. He deals with man in his relation to eternity. . . . The point that Benét makes is that part of man's vitality is due to his search for the eternal spirit, which leads him to the good, such as the desire for adventure and recognition of the timelessness of nature; and to the bad, as to war. The theme is that man must not—no matter how he may be stirred by the era in which he lives—join the mad rush that ends in destruction. If he can keep sight of the spirit, he is safe, through drastic changes of civilization." In analyzing Benét's philosophy this

student clarified her own and thus achieved one of the aims of our topic work. Another senior chose to write in French on three French philosophers—Pascal, Voltaire, and Rousseau. First she did a great amount of reading, in French—material which would have been difficult even in English for one of her age. She then wrote in a dramatic and original way a paper on the ideas of the three men. She called this topic “Cherchez et Vous Trouverez.” A third senior, interested in American Negro poetry, wrote what purported to be a preface to a new anthology of Negro verse. The questions to which she wished to find answers were these: “Does the great problem of race prejudice that still confronts us today affect these writers or they it? Are they—the Dark Voices among America’s poets—perhaps contributing something of great value to our pattern of civilization? Is the Negro now adding to that intangible something called ‘art’ without which no country will be remembered outside of the history books?” She reached definite answers. What they were is unimportant here. What it is important to understand is that these three topics—and there have been many others similar in method if not in maturity—have been the result of independent individual study of creative literature, and by *independent* we mean that the students have been unaided and unconfused by any reading of what critics have said about that literature. Thus these sustained pieces of writing are “the personally formulated expression of personally realized experience,” and as such they answer the well-founded objections, which we hear increasingly from the colleges, to the schools’ allowing immature students to write “long themes of literary criticism,” based on the reading of authorities backed by insufficient evidence and therefore “half-baked” and secondhand.

At any stage of a young student’s development the mastering of a piece of fine literature which is a record of human experience and the making of its material one’s own is a truly developing and an intellectually rewarding process. What, specifically, an individual student gets out of such a study will always depend on her capacity and the degree of her maturity at the time she tackles it.

The “topics” have proved themselves liberalizing instruments for many sorts of students. Their value for the able girl who

finds scope for the full exercise of her powers is obvious. Equally real is their value for the quiet girl, who is strengthened by the sense of becoming in some measure an "expert" in a line she is investigating, and for the less gifted girl with latent ability unawakened. The real beauty of the plan is that each girl starts from *where she is*. Jane Addams has said in *The Spirit of Youth and the City Streets*: "The most precious moment in human development is the young creature's assertion that he is unlike any other human being, and has an individual contribution to make to the world." It is in the conviction of the deep significance of this self-assertion that the topic work is rooted.

The topic plan is an ambitious one, and would fail to achieve its results were it not for the frequent conference of each girl with her topic adviser and with her director of studies. Interesting as are many of the subjects, it is the doing of the topic and not the completed work that has the greatest educational value, for it exemplifies to the student the significance of her own individual concerns and shows her that her teachers and her contemporaries have respect for the dignity of her interests.

The achievement of democratic living, the freeing of individual personality—these are two of our constant goals. The third is the stimulation of social interests. The great complexity of social issues, their controversial nature, and their signal importance make peculiarly challenging the decision of how best to deal with them at the secondary school level. Our aim is that our students shall gain a reasonable knowledge of the total community of which they will soon be adult parts, and that they approach all social problems, whether of the small school community or of the large community, in full recognition of their own identification with the various groups of which they are part.

Many schools in the Eight-Year Study have set up a core curriculum centered in the social studies with the history, English, and sometimes the art teachers carrying this part of the work, and with the study of science, mathematics, and foreign language conducted separately from the core studies. We at the Baldwin School decided after much discussion and many conferences with authorities that no one or several departments should be charged with the responsibility for this field, but that

its challenge should be shared by all departments. The fact that our teachers of foreign language, science, and mathematics have always made special contributions to the social point of view made this a natural decision. However, quite aside from this fact, we believe that there is real value in recognizing that social concerns permeate all departments of study as well as all aspects of living. The working out of our program has necessarily been slow, but within the last two years we have come to see more clearly how to proceed.

Through grade IX, both because of the fact that all the children are carrying the same work and because of their age, it is fairly easy to proceed. Lack of space precludes a description here of how the plans are executed at these levels. In grades X, XI, and XII, where the patterns of the girls' work become kaleidoscopic, the challenge is more difficult.

The description of the "topics" work in grade X has shown a part of this design. While a girl will probably base some of her topics on individual interests which are not social in nature, our advice leans in the direction of social investigations, and a considerable number of the topics are of this nature. In addition, the teachers of grade X in their frequent conferences with one another are making sure that each girl is given a chance to study current problems and contemporary history, integrating this work with that part of her program which affords the best opportunity for the introduction of such material. For example, a girl studying Roman or medieval history has a definite time in the course set aside for the study of current problems appropriate to the material of the course. English and science also offer natural opportunities. Although some students must at this time give special attention in French to the linguistic side of the work, our French course, which is conceived entirely in the social spirit, offers a wealth of such material for girls whose linguistic foundation is sound. The results of this work are shared with the whole class.

Beginning in the summer of 1939, we have been working out a way of using the summer vacation as a time for the study of the actual community in which a girl finds herself. The plan was rather informal in 1939. In 1940 it was made more specific

through the use of Joanna Colcord's *Your Community*. In the summer between grade X and grade XI each girl is asked to work on Chapter I—"Your Community, How to Study Its Health, Education, Safety, and Welfare"—and one other chapter, on community setting, founding and development, recreation, health, foreign-born and racial groups, or religious agencies. Careful instructions are given on how to collect and record data. An important sentence in the directions is: "Much information can be gained from observation as you walk along the street; older people who are working on these problems will be glad to talk with you about them; the town or city hall or the public library will furnish answers, etc." Girls who are to take mathematics in grade XI are especially told to get a copy of the budget of their community, showing appropriations for health, education, recreation, etc. It is planned that in the autumn of 1940 a joint committee of faculty and girls shall work out specific plans for the use of these community studies. It is clear that the uses of the material are many.

In grade XI special stress was laid in 1939-1940 on topics growing out of the community study and on group topics on social problems. Group topics that have been found very significant to the girls have been on such subjects as hospitals, juvenile delinquency, housing, racial problems, and race tolerance, with special reference to the Negro. In each case careful field work suited to the age level of the girls is done, and each girl works on a special aspect of the subject. Occasionally the class meets as a whole to share the results of the investigation.

In grade XI also the teachers of that grade plan together to make sure that each girl has a chance to study contemporary problems implicit in her courses, integrating this study with the subjects that she is studying.

Girls entering grade XII who have done a community study the summer before are asked to make a similar study based on *Your Community*, selecting one chapter on housing, local government, educational resources, employment, public assistance, family welfare, or child care. Girls who are to take XII mathematics are asked to secure certain definite items which are to be used for statistical work in grade XII: (1) the price of certain

food units, and (2) the unit of money given a single man on relief for food for a week.

The use of the material in grade XII will be similar to that in grade XI, due account being taken of the added maturity of the students.

Since in grade XII all students study American history, English, and religious education, the development of work on social concerns is a more obvious process. The religious education course is an especially fertile field. A day spent in conference with Dean Howard Thurman of Howard University on a discussion of human conduct in terms of Christian philosophy, the discussion being carried on at a completely adult level, was a high light for last year's senior class. Conferences with a distinguished psychiatrist on what it means to grow up and with an authority on marital relationships on our social and personal relationships have been powerful integrating influences on the personal and social outlook.

Trips to important institutions and industries, to public housing developments, a visit to Harrisburg long enough to see the workings of a state legislature, yield results that are essentially adult. Proper preparation before all such trips is, of course, necessary if the best results are to be attained.

The work of the Service League gives practical outlet to the social concerns developed.

We have found that a very valuable method of stimulating social interest and of cutting sharply across conventional department lines is to ask on tests or examinations a few questions which require the application of skills and techniques acquired in the course to issues much ampler than the content of the course.

The total life of the school centers in the actual study which is done day by day. In the matter which follows, the content of grades IX-XII only is discussed, but the entire curriculum is devised as a continuing process from grade I through grade XII with no sharp breaks.

### *Content of Curriculum*

Because we recognize the importance of individual differences and interests, our curriculum is of the "multiple choice"

type. Even before 1933 we had used the "multiple choice" curriculum to the full extent that the flexibility of the college requirements permitted. The extensions of it since then, however, are so many as to make the change one of essence rather than one of degree.

*English.* There are certain required subjects. Every girl must study English throughout her course. We believe it important that she have continuous training in the reading and use of her own language. We believe, too, that English, like the arts, provides her with a natural means of expressing her own individuality, and that through its literature, which is wrought from human experience and compounded of human relationships, standards, and attitudes, she can gain a real understanding of men's minds and hearts and a consequent scale of personal values of her own.

*The Arts.* Work in the studio and in music is offered in all grades. All students in grade IX study music or art; all students in grade X have one period a week of group singing. About half the members of grades XI and XII form the Glee Club, which makes a study of fine choral music. A two-year course in appreciation of music is given and a two-year course in history of art. The resources for the latter are greatly enriched by the gift of the Carnegie Foundation, consisting of books, reproductions, and photographs. Frequent trips to museums and galleries are arranged. The opportunities for practical work in the two departments are ample. The work in the studio is individual in nature, the student sharing with the teacher in the planning of the work. All mediums are used; crafts are developed to some extent. In the Music Department the instruction is also individual; opportunities are offered for vocal training, for the piano and the violin, and sometimes for other instruments such as the cello. Work in these fields is regarded as of the same dignity and significance as in any other, and we make sure that girls interested in either have the opportunity to pursue it throughout their course. The preoccupation of a teacher of the arts with the personality of the student at an age when she has not yet found her own powers is a genuine help in releasing strength and powers, qualities of vigor, and intensity of feeling, or other

predominating qualities of the nature of the individual. Character reveals itself peculiarly in the arts.

*Foreign Language.* This school regards the study of foreign language as more important than do some of the schools in the Eight-Year Study group. Since, in order to work at the college level in any field, it is necessary for a student to be able to use material in that field in some language other than English, we consider it our duty to give sound training in foreign language. We are convinced too of the social value of foreign language when taught in the social spirit, and are in agreement with President MacCracken's statement: "Surely at the present time, if ever, a knowledge of modern languages can be defended as essential in a society-centered curriculum. Modern languages are the indispensable instruments of internationalism and of the correction of chauvinism and parochialism in our national philosophy."

The study of French is begun early in the Lower School; the opportunity to begin it is given at all grades through the eighth. Latin is begun in grade VIII. Both Latin and French are studied in grades VIII and IX. In grade X at least one foreign language must be studied; in grade XI, where the pattern of choices is multiform, a foreign language is taken by almost every student, though the course taken may be a "minor" course occupying half the time of a regular or "main" course. Latin and French courses are offered in grades VIII through XII; German in grades X, XI, and XII.

*Religious Education.* In grade XI all students carry a course meeting once a week called "The Teachings of Jesus and the Principles of His Religion." In grade XII each student is a member of a small discussion group meeting once a week. The students in conference with the faculty leaders determine the general subject of the group study. Some subjects that have been chosen are: Creative Lives, biographies of significant men and women, past and present; The Challenge to Christianity of the Present Social Order; Religious Living, our personal perplexities, problems, and responsibilities.

The school has a brief religious service every school morning. On four days of the week it is conducted by the head of the



school, on the fifth by a senior. The service is very flexible, the leader deciding what shall be its nature. On Sunday mornings the boarding students all go to one or another of the local churches, thus sharing in worship with the community. On Sunday evenings there is a school service usually conducted by a clergyman (as many denominations as possible being represented) or by a social worker. Occasionally group reading or singing is substituted for the service. A conscious effort is made to help the girls maintain and strengthen their church affiliations during their school years.

*Mathematics.* Believing that success in many fields of work at the college level calls for the training in quantitative, functional, spatial, and logical thinking developed in mathematics, the school requires more work in mathematics than do some of the Eight-Year Study group. The course is planned in the conviction that the values of the study of mathematics are genuinely practical, disciplinary, and cultural, and these three values are stressed at each grade level. Special attention is given to the analysis of nonmathematical problems through the application of the principles of logic inherent in mathematics. All students study mathematics through grade X; almost all students in grade XI carry a course in mathematics, though the course taken at this level may be a "minor" course. A mathematics course is also offered in grade XII.

*Science.* Science courses are offered in grades X, XI, and XII, and include both biological and physical science. It is expected that every girl will include at least one of these courses in her program, but the requirement is occasionally waived when to hold it would violate the fundamental doctrine of regard for the development of a student's special interests. The science course is described more fully later.

*History.* The History Department takes as its definition of history "the study of man in society from his dim beginnings to the present day." The course represents a chronological sequence from grade IX to grade XII, the plan of the work being the "social process" approach. We try to help the students realize that the world has never stood still, to help them gain a sense of the reality of the past, and to stimulate historical imagination. All

students take the basic course in grade IX, Oriental and Greek history. In this course special stress is laid on arousing sympathetic appreciation of the problems of these early peoples which are essentially the same as our own. Courses in Roman or medieval history in grade X, English or modern European in grade XI, and American in grade XII are included in the curriculum.

The special plans made under the guidance of all departments for the study of current problems and contemporary history in grades X and XI have been described in the section on social concerns. All students in these grades have this work whatever the center of their interests.

*Physical Education.* All students participate in the activities of this department. Health education and health habits are stressed, the Physical Education, the Medical, and the Science Departments cooperating in the program. In grade IX there is a definite short course on health, which includes both healthful personal living (definitely in terms of the girls' own life here and now) and problems of public health. Frequently students choose as subjects for their topics problems in this area. Careful physical examinations followed by the exercises indicated by them are a part of the program. In the sports, individual interests determine to a great degree which sports and games a girl shall play. Meetings with other schools for sports are fairly frequent, but not excessively so; whenever possible such meetings include forums for discussing aspects of school life—the desire being to secure the advantage of social intercourse and of playing together without undue stress on the competitive spirit. The awards for excellence in this department are made through the decisions of joint committees of students and teachers. Stress is laid at every point on the cooperative spirit engendered by true sportsmanship.

On entering grade X a student first begins to make important choices as to what she will study. The choice is limited. She must study English, mathematics, and a foreign language. With the help of her director of studies she chooses her fourth subject (or it may be two minor subjects). Her amplest area of choice in this grade is in connection with her topics.

On entering grade XI she may if she is ready to do so choose a

"center of interest," or she may say that she is not yet ready to make such a choice. No pressure is put on her to select one. If she does not select a center, her course includes English, a foreign language, mathematics, and history. In order to include another subject in her program, she may choose the minor course in mathematics or history or both. No one may take more than two minor courses.

She may be ready to choose as center of interest science, history, languages, or one of the arts. If her center is science, she will study English, science, mathematics, and choose freely a fourth main subject or two minor subjects. The other patterns are similar. Each design includes English, the center of interest, a subject connected with the center of interest, and some free choice.

The topic work described earlier is a very important part of the work in grade XI.

In grade XII each student studies American history, English, and religious education. The rest of the course is determined by the student in conference with her director of studies in terms of her developing interests and future plans. It is regarded as equally dignified and suitable to maintain or to change the center of interest chosen in grade XI. In the selection of a program of work great stress is laid on the pattern of the entire course, and not on the choice of isolated courses.

This plan of multiple choices is designed to achieve two ends. The student is assured that in each year she may seriously pursue the subject of her greatest interest; at the same time she is assured that her immaturity will not be allowed to result, through unlimited freedom of choice, in her finding at the college level that she is hampered in her pursuit of ampler aims by having omitted basic training needed to achieve these ends.

It should be noted that this curriculum is not one implying early specialization. It recognizes the significance of a student's main interest if she herself is conscious of having such an interest. It recognizes the naturalness of a chance in that interest a year or two years later. It is not similar in intent to the true specialization begun in the last year or two of the English public school or in the last year of the French *lycée*.

The matter of correlating a student's work under such a plan presents very special problems and opportunities; there is no easy solution. All the teachers of a given grade (VII through XII) meet with the director of the grade at frequent stated times to share their plans for the coming weeks, so that correlating plans may be made whenever possible and so that each may have knowledge of the plans of all. This group of teachers will in grades X and XI include the topic advisers of the class, and these meetings indicate how the content of the courses may be used in connection with the topic plans. In uncountered instances two or three teachers work out together ways of tying up the work of a given girl.

In the conduct of classes, we try not to forget that mastery of important subject matter is a necessary foundation of all learning and of all true intellectual and personal growth. We maintain that a proper regard for a student's own interests and concerns makes this mastery more significant to students if we are careful to avoid the easy pitfalls of allowing superficial generalizations, glib catch words, and the like. We try to help our students realize to the degree possible at each age level that valid opinions in every field must be based on ascertained facts, those often neglected but indispensable realities. We seek to help them to face gladly the drudgery necessary in acquiring and especially in correlating for use the facts needed for mastery. It is our constant aim to help the students to become adults who will demand of themselves wide and deep knowledge in order to understand and appraise their own world.

### *Examining and Evaluating Program*

There is considerable flexibility in the examining and evaluating program of the school. Three times in the year three or four days are set aside for examination. Each teacher decides whether or not to give a formal examination at those times. The examinations are regarded as a teaching device. No examination grades are given the girls, the results being incorporated in the total grade sent to the office three times a year. Nor are these total grades given to the girls or parents. Each teacher writes a careful sentence appraising the progress of the girl, including

her strong and her weak points and suggesting what she needs especially to stress. These sentences, supplemented by a statement from the director of studies, constitute the report sent the parents. Each girl has at this time a leisurely conference with her director of studies; there are very frequent conferences at other times whenever they seem advisable. Every day a director of studies has some such conferences.

As to standardized tests, all the girls take in October the American Council Test and the reading tests recommended by the Educational Records Bureau. Various special classes are formed for those who have reading difficulties. The school psychologist and one member of the faculty who has given special study to this problem have some of the classes; under their direction the apprentice teachers conduct others. Similar special remedial classes are set up for girls with provincial speech, for those who cannot understand spoken French, for those with fundamental arithmetic defects.

The "evaluation" program of the school is a rather simple one, because in a school of our size, where the entire life involves such constant contact of teachers and girls, we do not need the ampler program of the large school.

Each year all teachers rate the girls on the Behavior Description blank. This becomes a most valuable cumulative record. A special committee decides which of the diagnostic tests devised by Professor Tyler shall be used. The ones that we find most helpful are the tests on Interpretation of Data, on Application of Principles to Social Problems, on the Scale of Beliefs, on Organization and Establishment of Proof, and the Interest Questionnaire. Individual summaries are made and the results are discussed with the girls. Stress in these summaries is laid on points of strength, needs to work for, and changes as compared with results when the test was last taken.

### *Certain Special Courses*

In the scope of this report it is not possible to give in detail the content of the work of all departments. Certain courses, somewhat different from those offered in most schools and not

included by implication in the earlier parts of this report are here referred to.

*Latin.* We have devised a very special Latin course for the girls who on completing the required two years' work of grades VIII and IX are to continue the study. Reading at sight and a study of the often exciting meaning of words have already been stressed in the required years. In grade X the Latin course is entitled "Roman Civilization" and is a "functional" course. The students write no Latin; they read Latin which shows the history of Rome and its cultural background. At the same time they study Roman history as a part of the course. Suitable extracts are read from the works of Livy, Cicero, Velleius Paterculus, Suetonius, Quintilian, Seneca, Pliny the Younger, Martial, Apuleius, Eutropius, St. Jerome, St. Augustine, St. Gregory the Great, and various Latin authors of the Middle Ages. The extracts have been selected and mimeographed by our own department. Excursions from such a course are many. For example, the reading of Pliny's account of the eruption of Vesuvius may be followed by a visit to the Metropolitan Museum or by the construction of a typical house of Pompeii. In this course constant comparison is made with current political and social issues—dictatorships, empire problems, racial minorities, tolerance as a guide for public action, etc. Following this course girls who continue work in Latin go on to read Latin poetry.

*French.* The "study of civilization" approach characterizes the French course throughout the Upper School; it consists of a study of French civilization and history and social growth as well as a study of the language. From the elementary grades the children write in French on subjects suited to their age level, and representative of their developing special interests. In grade X the course is centered on medieval times and the Renaissance, in grade XI on the seventeenth and eighteenth centuries, in grade XII on the nineteenth and twentieth centuries. A very unusual degree of correlation has been worked out by the French Department with all other departments. Individualized assignments give the students the opportunity to work especially on the aspects of the period which are of interest to them and to use

their work in other fields in connection with the French. Certain important outcomes of this approach have been indicated in the section devoted to "topics."

*Science.* Under the stimulus of the "new curriculum" the science course has been entirely remade. There is no science course in grade IX, but in this year the Science Department cooperates with the mathematics teachers by giving the students the opportunity to handle laboratory apparatus in order that they may get a firsthand acquaintance with scientific material at the time when they are learning to deal with the same material from a mathematical standpoint. In grade X a basic course is designed to open new doors through the study of life activities, revelations of the microscope, and the stretching of the concepts of time and space which comes with the study of both physical and biological evolution. In grades XI and XII a two-year sequence in physical science (physics and chemistry) is offered. In grade XI the elements of the two sciences are studied—this course is nonmathematical. As we are not a school training students to become engineers, nor often to become research workers in physics and chemistry, the course is not set up in the pre-professional spirit. Students trained in it do, however, acquire such experience in the scientific method that those who wish to do so are prepared to adapt themselves to the research approach in college.

The selection of material in grade XI is designed to give to the student an intelligent understanding of the familiar things and happenings of everyday life—telephone, rainbow, fires, automobiles, refrigeration, thunderstorms, etc., *ad infinitum*. Special stress on effective thinking is laid by helping the students to analyze more critically than heretofore the processes of reasoning which we are constantly employing. The work is pursued cooperatively; the class is broken up into groups, each group undertaking to work on a given aspect of a subject and assuming the responsibility for carrying on without external compulsion the investigation involved. The group thus cooperating pools its share, and from time to time the whole class shares the results of the groups. Science is a good field for this approach, since it deals with concrete material and thus gives chances for

students to recognize actual problems and the need for carefully planned solutions. In the handling of such material it is fairly easy for the pooling to be done impersonally, and through this experience there comes an unfolding of thought impossible to an individual working alone.

In the second year of the sequence, the work, now including the mathematical approach, is continued in the same spirit. At this level the interests and individualities of the girls in the class can be important factors in determining the subject matter to be studied. The students learn to understand the nature of the materials and of many processes of modern daily life from the scientific point of view. This class always consists of a rather small group of girls with real scientific interest.

A course in physiology is offered to juniors and seniors. In the same spirit, this course is designed to inform students with regard to their own bodies and to increase their awareness of broader health and social problems including those of others less fortunately situated than themselves. The students come to understand the body's structure and activities and also the results of the play upon it of such internal influences as mental attitude and emotions. Considerable time is given to the study of social problems such as the relation between poverty and public health, industrial hygiene, child health, and child labor. Firsthand contacts are sought wherever possible. The topic work done by students in this class is often on subjects of medical and social significance.

Although the cooperation of the older girls is used to some degree in the planning of the content of the year's work in all departments, it is in the Science Department that the most ample opportunities for this creative intellectual activity have been developed.

### *Future College Entrance Requirements*

Since it is true that practically all the students of the Baldwin School are going to college and that a large majority go to one of the "five colleges," the new requirements of these colleges, to be stated in the year 1940-1941, are of vital importance to us, for on them will depend the answer to the question of how much



of our present curriculum can be maintained when the eight-year period is over. We are not reluctant to submit our students to the College Board Examinations; indeed, during the progress of the experiment all our students going to these colleges have been required by us to take the English examination as well as the Scholastic Aptitude Test required by the colleges. We very much hope, however, that the total number of subject examinations required will be not more than three, that the choice of the two other than English may be left absolutely free, and that the examinations may be taken in any desired combination in the junior and senior years. With this flexibility we can maintain our curriculum centered in the interests and development of the individual student. We hope too that the formalism of the Carnegie 15-unit requirement may be dropped, in order that we may continue to be able to give the girls the amount of time necessary for a continuation of the topic work and the other projects here described. The value of this type of work is entirely lost if it must be done under pressure. Our own experience in trying to do it in the past is to us conclusive evidence on this point. We have strong testimony from our girls in college that this experience in school is of signal value in college. We hope further that the subject requirement of the colleges will be less restrictive than it has been in the past, for we have found the greatest value in a plan in which a girl may be assured of the opportunity of studying during all the last three years in school the subject of her special interest, regardless of whether this subject be music, art, science, history, mathematics, or foreign languages. We assume that English will remain for all a constant part of the curriculum. It is especially important for us that the five colleges make the same requirement, for we prize the opportunity of encouraging the girls to wait until the end of the junior or the senior year before deciding formally on their choice of college, in order that they may continue to make the choice in terms of their own interests and plans, and not in terms of the restrictive requirement of any one college. We look forward with confidence to the strengthening of the whole system of secondary education when all secondary schools preparing students for college have the advantage of the type of

freedom and responsibility in planning their curriculums that we have had during these years. We are convinced that it is the business of the secondary school to devise the curriculum suited to the age level of the secondary student, and that of the college to test the power developed under it as a basis for admission to college.



The graduates also have their organization which has undertaken various continuing responsibilities for the welfare of the institution, which has representatives on the board of trustees and which through its bulletin and other means keeps the alumnae in close touch with the school.

After graduation about one-half of the girls go to college, about one-third attend schools for special training in music, art, drama, homemaking, business, or some other field, sometimes after an interlude for "coming out." Most of the remaining one-sixth live at home and undertake volunteer activities in connection with various charitable organizations. Very few plan to work immediately after graduation, but practically all wish to prepare for eventual self-support.

The Beaver School has always tried to keep in close touch with educational developments and to contribute to them by its own investigations and experiments. In fact, the assignment given to the administration and faculty when the school was organized included this service to education as a major part of the school's responsibility, and this has been reinforced by later formal statements made by the board of trustees.

As a consequence of this interest on the part of the trustees and the parents whom they represented, it was natural for the school to depart from conventional procedures where that could safely be done under existing conditions, and this had occurred to a considerable extent before the Eight-Year Study was started. Perhaps this can best be defined by saying that at Beaver Country Day School there was:

1. Unusually extensive study of individual pupils with carefully worked out recording systems for both Lower and Upper schools; behavior and characteristics were emphasized.
2. A high degree of adaptation of curriculums and methods to individual needs.
3. Emphasis on creative self-expression, and on development of the power to think independently.
4. Major courses for girls not preparing for college in such fields as arts and crafts, music, homemaking, and drama.
5. College preparatory courses that borrowed from the richer

nonpreparatory courses and deviated from the traditional pattern in so far as it seemed safe to do so.

6. Much student participation in the conduct of the school and emphasis on reasonable freedom and the importance of interested self-activity.
7. Important faculty participation in planning the curriculum and deciding other matters.
8. The development of subject matter and methods not in common use. For example:
  - a. Etymology, introduced to replace the word study of Latin for pupils not taking that subject, proved so valuable that it became a requirement for all pupils.
  - b. "Socialized Mathematics," later described more fully, was being developed for pupils not planning for college.
  - c. Geometry was taught, for all pupils taking it, without a book of proofs, the subject being considered one for investigation and the use of logic, not for memorization.
9. Replacement of "marking" by the analysis of pupils' progress; lessened emphasis on college entrance examinations except for a short period of explanation and practice at the end of the senior year.

Participation in the Eight-Year Study, with resultant freedom from a specified pattern of preparation for college and from preparation for restrictive entrance examinations, made it possible to open to all students those experiences that had been available only for those not preparing for college, and because of this wider participation made it feasible to work toward the school's objectives more completely than had before been the case.

At this point it seems necessary to make it clear that the Beaver School has always believed knowledge to be important and its acquiring to be an essential aim of any educational process. It does not believe, however, that the mere exercise of rote memory has particular value, especially when the facts memorized have no lasting importance or when facts that are important are learned so inadequately that they are retained for short periods only. Neither does the school believe that particular subjects are in themselves sacrosanct because of their value

as "mental training." Rather it believes that the best training for any individual comes from the experiences that fit that person's abilities and needs.

### *Objectives*

The general aim of the school could be tritely stated as that of helping each pupil toward her greatest development in all the attributes that make for success as an individual and as a member of human society. This aim is defined to some degree by the school's consideration of each pupil, not as an aggregate of powers or traits, but as a person influenced by and influencing her environment and as such to be studied and judged by resulting behavior carefully analyzed as a basis for guidance. This results in as genuine concern about such matters as physical development, manual skill, emotional responsiveness and balance, social adjustment, aesthetic appreciation, and spiritual growth as about the achievement of mental power. Yet each of these is considered as part of the pattern of the development and functioning of a human being.

The first objective under the general aim is to secure an understanding of each pupil that is as nearly complete as possible.

The second closely related one is to know, as well as can be, the present needs of each pupil, and the demands of later years and of adult society that are likely to affect her.

The consideration of these two purposes and of what has been learned under them results in many objectives, varying in importance, some of a general nature, others of a more specialized kind. Even to state all the details of these objectives would extend this report beyond reason and usefulness. Some, however, that are principles and resulting procedures rather than detailed objectives, are too important to omit.

Since a man or woman (leaving aside inheritance) reaches any stage of development primarily because of experiences undergone, a school needs to provide for its pupils active participation in a range of experiences so wide and so real that all sides of life will be developed by the purposeful activities in which the pupil takes part. While the most important kinds of activity are those related to moral and spiritual values in human society

and to democratic participation in the responsibilities and privileges of citizenship, almost any self-activity in the use of body and mind and in self-expression in its various forms can be so used that it has a place in this category. A major objective, therefore, is that of providing a wide range of self-activity, supplemented by vicarious experiences where direct ones are not possible. Whenever feasible the self-activity is so planned that it offers opportunity for original thinking and creative self-expression.

A corollary to that is the desire to add reality by lessened recognition of artificial lines between subjects, or between school and life outside the institution, so that some of the preparation for living formerly supplied in a simpler environment by the home and community can be restored under the direction of the school. This often places the emphasis on the undertaking rather than on the subject and encourages the student to use all the means at her disposal to arrive at a sound solution of her problems. This is evidently a matter of correlation and of relationships freely and broadly considered.

Another objective is that of helping each pupil to arrive at some continuity of experiences that will give serious meaning to the pattern of schoolwork, as well as serve as a foundation for future thought and study. This continuity might be in fields of subject matter or in relating various experiences to some center of interest and activity. In any case it would make impossible a course of study made up of unrelated samplings.

Under these very general objectives all the teachers of the school analyzed the contributions they could make, and arrived at fairly definite objectives that were used as determinants of their shares in the curriculum and of the methods they would use. This was done in departmental and interdepartmental meetings, in conferences with Dr. Ralph W. Tyler and other members of the Staff, in work on various committees, and in discussions with department heads and other executives. In the first years of the Study it was greatly stimulated by the meetings where faculty members from all the schools came together to consider their common problems.

*Development of the Curriculum*

The curriculum that has resulted from the Beaver School's participation in the Eight-Year Study may not fit any other school, for it has been developed to meet the needs of a particular school, its patrons and their children. Its chief value is that while differing markedly in content, methods, and emphases from the commonly accepted curriculum of secondary schools, and coming nearer than formerly to meeting the everyday needs of its pupils, it yet prepares pupils adequately for continuing their study in advanced institutions. It does this not by bringing about uniformity, but by providing for a wide range of differences not only in choice of fields of concentration but also in range of experiences within any one field or course. It is hoped, however, that some of the material developed by these years of experimentation may fit into the patterns developed by other schools in a way to prove helpful to them, or that the curriculum as a whole may prove suggestive to other schools by showing the way in which one institution is meeting its own needs.

The curriculum is partly a four-year one and partly one covering five or six years, since the organization of the school makes it possible to work on the five- or six-year basis where that seems desirable. There is no distinction between a college and a noncollege course, but each pupil is advised in the choice of studies and activities according to her abilities, interests, and plans for the future.

In making the curriculum, it was recognized that mastery of the use of one's own language was a first requisite for all pupils, as well as that any field might prove to be of supreme importance for a particular pupil. Nevertheless it was decided that social studies should be the center or "core" for chronological organization. This meant that the course in this field should be the first planned (though with consideration of other fields), and that the arrangement of material used in other fields should allow for correlation with the periods taken up in the social studies. Various experiments were made in relation to this plan. It was realized that English should be closely related to the social studies, and for a time the two fields were even combined by



the use of long periods and were taught by the teachers of the two subjects working together. While much was gained by this attempt, it was later given up for separate classes kept in close touch through conferences of the teachers, and of teachers and the librarian.

This central curriculum in social studies now is as follows:

*Grade VII.* History of the United States. This is what seems to be a necessary completion of a cycle carried through the Lower School.

*Grade VIII.* Primitive Man and Early Civilizations. This year is the beginning of a five-year sequence that might be called a study of "The Development of Modern Civilization." It is concerned with mankind's problems, particularly the continuing ones, knowledge of whose history throws light on the present and future.

Naturally to have meaning for the present such a course must not be rigidly chronological, even though it is organized in successive periods in the world's history. Consequently there is a free and quite continuous "shuttling" between past and present, with comparisons, lessons to be learned from the past, and light thrown on each period by what is known about the others.

The eighth grade course is closely interwoven with science during the early part of the year. It starts with a simple study of theories of the universe and the formation of the earth, takes up the beginnings of life on the earth, and gives considerable attention to elementary anthropology. It then goes on to the significant early civilizations, with particular attention to their problems and their contributions to man's progress, material, social, and ethical. The connection between English and the social studies is very close during the study of civilizations, perhaps closest while mythology and the Old Testament are taken up in English.

The ninth grade carries the study of civilizations through Greece and Rome. Here, too, the English course correlates closely. The study of the Old Testament is continued and there is considerable attention to classical literature. The *Odyssey* is studied intimately, to some extent in contrast to the Bible, and about six weeks is given to a research paper on a topic related

to Greek history or culture. This is a joint history and English project.

The medieval period is taken up in the tenth grade, with emphasis on topics of investigation rather than a detailed study of all the events of this period. The contribution of the English Department is largely through the study of selected parts of Chaucer.

The eleventh year concentrates on the later period up to 1900. In English much is done with the historical background of the Tudors, with early printers, and with literature throwing light on various times. Such books as *Life in Elizabethan Days* by Davis, Spenser's *The Faerie Queen*, some good historical novels, and *Macbeth* are read and discussed, talks on the art of the periods are given, and trips are made to libraries and publishing houses. The reading of *Utopia* also furnishes an excellent correlation with the work being done in socialized mathematics.

The last year's work in social studies falls into parallel divisions. One, primarily a lecture course, analyzes "American Culture" through a study of the early history of the United States, especially the development of its philosophy and institutions. The other, starting from the Civil War, studies the trends and influences from that time to this, with special emphasis on contemporary American problems. One section of the English course gives part of the year to contemporary literature and the light it throws on modern society, but there is perhaps less direct correlation in this year than in the preceding ones.

It is evident that the contributions of the English course to the study of civilization could not be considered a complete program for that department. It was decided early in the Study that forced or unnatural correlations would not be encouraged, and that no department would be asked to omit what it considered an essential part of its objectives in order to relate itself to other departments. Consequently the English Department uses books bearing on the period being discussed in social studies only when they seem fitted to the pupils, and when some literary or other values sought by the department can well be gotten from them. In addition it carries on the other work that is essential to its own program.

Before discussing further the details of various parts of the curriculum the complete listing of the subjects offered will be given. In reading it one should remember that it is only the raw material from which a curriculum is constructed to suit each pupil. Also, even though two pupils have identical curriculums, their work will not be identical, for within each class there are wide variations in the problems undertaken and the researches carried out.

The program of studies may seem to be still quite academic, perhaps remote from life. To a degree this is true, for the families and pupils with whom the school deals consider the work of the school in general as a preliminary to still further study, rather than as preparation for immediate participation in adult activities. In particular it will be noticed that names of courses have not been so completely changed as has often been advocated. Whether this retention of commonly used subject names eventually proves to be right or wrong, so far it has been deliberate. There are great fields of human knowledge and activity, generally recognized and used, that should be reasonably familiar to all educated people. From these fields the information and skill that is necessary for "family membership," "economic participation," and other essentials of life can largely be obtained. It is a question of organization rather than content; and Beaver has retained the subject names, considering the other type of title as an objective to be prepared for rather than the name of a field. Under the subject names, even those that are most traditional, there are experiences and subject matter that do have life meaning, and that serve the objectives accepted for the school. For example, the teachers are using about seventy-five places in and around Boston to which to take their pupils, including those illustrating social problems, historical events, the arts, and the activities of commerce, transportation, and government.

The six-year program in use at present, but subject to change at any time, follows. Although it is divided into years, it is not necessarily accomplished in the number of years indicated, or divided in the exact way it is set up. Some pupils, for example, wishing to take advantage of more opportunities than can be taken in the number of years indicated, or needing a less

demanding program, spend five years between the eighth grade and graduation. Also the faculty may recommend, and the board of trustees may authorize, the granting of a diploma for a course considered an equivalent in its total value, though it fails to conform to some of the usual requirements because of reasons that are considered adequate.

In the following program, subjects are required of all pupils only if they are judged to be in one or more of the following categories, which are not, however, exclusive:

1. Those, particularly in the junior high school, that are essential to an elementary survey of important fields; this has importance both for the pupil's understanding of fields of knowledge and activity and for her future guidance.
2. Those that are needed for actual use in, or for understanding of, the common activities of life.
3. Those that constitute a basis for acquaintanceship with the best that man has been and thought and done in past and present.
4. Those offering opportunity for experience in constructive means of expression and the development and coordination of powers leading to such expression.

#### *First-Year Junior High School (Grade VII)*

*(All work required)*

English, including a special class in reading and study skills

Social Studies—the United States

Mathematics—first-year junior high school mathematics

French, preceded by the study of language in general

Science—health, personal and public hygiene

Arts and Crafts

Music

#### *Second-Year Junior High School (Grade VIII)*

English, including a special class in reading and study skills

Social Studies—creation of universe and earth, the coming of life, elementary anthropology, early civilizations

Mathematics—second-year junior high school mathematics  
(arithmetic, simple algebra, mensurational geometry)

French

General Science (correlated with Social Studies during the

first part of the year, and with Homemaking the latter part)

Homemaking

Music

Arts and Crafts (elective)

*Third-Year Junior High School (Grade IX)*

*Required*

English

Etymology

Social Studies—continued study of civilizations, particularly Greece and Rome

General Science

Music

Handwork in Arts and Crafts

*Elective* (two to be chosen)

World Geography

Algebra

French, beginning or continued

Latin

Art

*First-Year Senior High School (Grade X)*

*Required*

English

Social Studies—the Medieval Period

Socialized Mathematics—the social background in which mathematics is used, the mathematics commonly needed for personal and social purposes, the history and relationships of mathematics, the logic fundamental to it, simple legal questions involved

Music

Handwork in Arts or Homemaking

*Elective* (two to be chosen)

Algebra

French

German

Latin

Biology

Typewriting

Drama

Arts and Crafts

Music

Homemaking

(These are so-called "major" courses equivalent to any other full course. A pupil may elect work in one of these fields for from one to three years.)

*Second-Year Senior High School (Grade XI)*

*Required*

English

Social Studies—the Modern Period

Socialized Mathematics—second-year

Music

Handwork in Arts or Homemaking

*Elective* (two to be chosen)

Algebra

Arts and Crafts

Geometry

Music

French

Drama

German

Homemaking

Latin

Typewriting

Biology

Environmental Science—first-year

*Third-Year Senior High School (Grade XII)*

*Required*

English

Social Studies { a. Contemporary period  
b. Lecture course on "American Culture"

Music

Handwork in Arts or Homemaking

*Elective* (two to be chosen)

Continuation of any foreign language

Continuation, or election of an earlier year, of Drama, Arts and Crafts, Music, or Homemaking

Environmental Science—first- or second-year

Any other subject listed in a lower class

Mathematics—solid geometry, advanced algebra, trigonometry

While there is considerable freedom in the choice of electives, the principle of continuity is applied to each course, so that a pupil has some experience in each of the major fields within the six-year sequence. The majority of the pupils carry French through six years, but this subject, as will be explained later,

includes more than the study of a foreign language. No other elective subject can be considered a general choice, though the major courses in arts and crafts attract many pupils.

### *Fields of Activity*

Various courses now in use are different enough from traditional usage to justify some description, though it is difficult to convey in words a clear understanding of the vitality that characterizes them.

*English.* One important addition to the work of this department is not dependent on the freedom given by the Eight-Year Study, though it has been stimulated by it. The full time of a specially trained teacher is given to work on reading and study skills with the Upper School pupils. A room has been designated and equipped for this purpose, and it serves as the center for teaching and for practice carried on by pupils. All pupils in grades VII and VIII, and those in other classes who particularly need it, are given this help.

Closely related to this is the training given to all pupils by the librarian. This training includes the use of library files, of the table of contents of a book, of various kinds of reference materials, and of the text itself for the purpose of acquiring information on specific subjects. Teachers in the various departments cooperate in this training by assigning subjects for investigation and for "long paper" reports, and by being present in the library in the earlier stages of such undertakings in order to help the pupils to learn to use source material at hand intelligently.

Etymology is now required of all pupils in the ninth grade. It is closely related to the English course, though it is now [1940] being taught by a member of the French Department. Its purpose is to make the pupils more aware of the nature of their own language and of the relationships of languages, and to interest them in words and their precise use. The most important roots in Latin, Greek, and Anglo-Saxon are studied, derivatives are traced through modern languages, word families in English are built up, and some idea is obtained of the complicated texture of our tongue. Quite fascinating devices showing the sources

of English words are invented and constructed by the pupils of each class.

In the tenth grade the English Department is conducting, with the assistance of other departments, an undertaking that is both a research and a demonstration. It is an attempt to find out to what extent the various arts of expression can be used in combination and in relationship to overcome inhibitions in young people, to stimulate self-expression in general, and to aid expression in the particular medium best suited to each individual. Music, the illustrative arts, drama, and the dance are used in addition to language, as ways by which an emotion or idea can be expressed. For example, a poem read to the group might have its fundamental idea interpreted by various groups of pupils through bodily movement; it might be dramatized, translated into color, form, or music, or expressed in another word form.

Teachers of the various departments concerned have cooperated in this study; and a careful record is being kept of the results, both as they affect the pupils and as they show in the production obtained. Moving and still pictures are taken, and the record will eventually be available for the use of other schools and teachers.

In the twelfth grade one class in English devotes the first half year to a study of the modern novel, with particular emphasis on its interpretation of the life of a period. The rest of the year this group uses contemporary literature in other forms as well as literature of the past.

The examples mentioned are simply the most marked departures from common practice. In all of the English classes there is greater freedom than formerly in the choice of literature to meet the purposes of the department, and material of many kinds enriches the work. More precise use of language is developing as a natural result of logical thought, and of the pupils' own interest and investigation.

*French.* This department has increasingly developed its aim for the pupils to include not only the acquiring of fluency in the use of the French language but also the placing of the language in its relationship to other languages, and to the French people, their



country, their history, their activities and customs, and their psychology. Perhaps the course might better be thought of as one in French civilization, with the language as the single most emphasized item.

The first significant departure comes in the seventh grade, where approximately one-half the year is given to the study of language in general, its use of word forms, the way in which roots serve as a foundation for families of words, the similarities and relationships between different languages. The French language is emphasized throughout this work, and it gradually becomes the full subject of the course, though with the broader interpretation already described.

Much attention is given to the locale of any story read, to the period in French history in which it is laid, and to all that throws light on the life it portrays. Plays are given in French, and pupils are taught to understand spoken French as used by French people and to have some start toward speaking it themselves. As a help toward the oral and aural use of the language, recordings are made of pupils' speech, and these are contrasted with those made by native French teachers.

The organization of the course in French lends itself to correlation, particularly with English and social studies. The history of France is emphasized as it fits into the general picture taken up in the social studies. For a time it was read in French, but it is now read in English since other material seems to be more valuable as practice in the language itself. French literature is compared with and related to English literature of the same period. Lectures and illustrative material bearing on the various periods of French history are furnished by the art museum to our classes, and serve as a center for discussion and research. Use is also made of French moving pictures, particularly those given at Harvard University and at the Fine Arts Theatre. Similarly there is opportunity for discussion of music, drama, and the illustrative arts, or even of homemaking as practiced in France.

The school recommends, in general, that a pupil studying French as the only foreign language shall continue it through the Upper School so as to attain a useful degree of proficiency in reading the language and in understanding and speaking it,

as well as a fairly broad understanding of France and the French people.

*German.* So few pupils elect German that this language is not an important part of the curriculum. However, for those who take it the objectives are similar to those used in the study of French.

*Latin.* Election or nonelection of Latin is considered an individual matter to be determined by the tastes, abilities, and plans of each pupil; therefore this subject is not required even for candidates for college. Its importance as a foundation for other languages, as well as a source of vocabularies in other fields, is recognized, but with the limitation that for many pupils it would prove too expensive in time for this one objective to justify its inclusion in their curricula. The etymological study in grades VII and IX was introduced to compensate for this loss to pupils not electing Latin, and to carry the word study further than a single language could take it.

Certain pupils do seem to gain greatly from the study of Latin. Some may intend to specialize in linguistics; others may be particularly interested in the construction of the English language; still others may enjoy the Latin for itself, its logical structure, the interest of its literature, the fascination of the related history. For all such this department is open, and here too the course has expanded far beyond the study of the language itself into a consideration of the place, the time, and the conditions in which the language was used.

*Mathematics.* In the first two years of the junior high school (grades VII and VIII) the content is quite conventional in that these years are considered to some extent a survey period, and the more common applications of arithmetic, the mensuration of geometry, and the beginnings of algebra are all included.

The only mathematics required of all pupils after the eighth grade is the two-year course in "socialized" mathematics given in grades X and XI. This course originated in a survey of the mathematics actually used in the nonvocational activities of people in general, and it has been fitted with increasing accuracy to real needs by a long period of analysis and trial. It includes a study of social backgrounds for the mathematics used.

The topics included in the course are:

|                   |                             |
|-------------------|-----------------------------|
| Money and Banking | History and Appreciation of |
| Investments       | Mathematics                 |
| Budgeting         | Business Law                |
| Bookkeeping       | Taxation                    |
| Logic             | Installment Buying          |
|                   | Statistics and Graphs       |

Algebra, plane and solid geometry, and trigonometry are elective subjects. Their content has not yet been changed but they are taught with emphasis on original thought, and with attention to their relationships to other fields and to practical use. Geometry, in particular, is developed as research into the characteristics of the figures studied; therefore it is preceded by a short course in logic, no book of proofs is used, and all theorems as well as so-called "originals" become subjects for investigation.

*Science.* This, as has been described earlier, is a required subject for the seventh, eighth, and ninth grades. The elective senior high school courses are as follows:

*Tenth grade.* Biology. Emphasis is given to health, simple psychology, fundamentals of plant and animal life.

*Eleventh and twelfth grades.* Environmental Science. This includes the fundamentals of the various sciences as they interrelate and form a foundation for an understanding of man and his environment.

In the environmental science, each pupil carries on an investigation during part of the year and reports her results to the class.

Throughout the course discussions and laboratory experimentation are supplemented by field trips, the collection and organization of material, and the use of moving pictures.

*Arts and Crafts.* Ever since the school opened, work in this department has been emphasized. All pupils in the Lower School and a large majority of those in the Upper School take part in it. For many in the Upper School art is a minor subject, but for others it is a full major course comparable to the work in any academic field. The major elective is offered to pupils in the senior high school, and may be taken for one, two, or three

years. To care for individual needs and interests pupils choose their periods and activities in conference with the head of the department.

The school has a very large skylighted studio. An office and small studios for modeling, jewelry making, and printing and bookbinding open from it. There is also a room for drawing from live models and for stereopticon use, and a large workshop where carpentry and work in pewter and hammered silver and pottery are carried on.

The activities of this department are numerous and varied. The following list includes the arts and crafts that pupils have undertaken: drawing, painting, design, linoleum-block printing, wood engraving, etching, dry-point etching, lithography, modeling, sculpture, ceramics, carpentry (including ship models), needlework, rugmaking, batik, tie dyeing, stained glass, jewelry making, silversmithing, iron, pewter (both hand-shaped and cast), copper and brass work, printing, bookbinding, and theatre arts—including puppet making, costume designing, stage designing, and scenery making, usually in cooperation with the drama department.

The equipment includes a fine library and pictorial research material, and the Museum of Fine Arts, Fenway Court, and the Fogg Museum are used regularly. It is therefore possible to offer a major course that includes history, appreciation, and theory, as well as practice.

Each pupil who majors in this department combines general study of the subject, which is meant to help her to interpret it, with work in design, drawing, and whatever crafts are chosen. Although there is no "course" in much of the art work, this combination results in a preparation for advanced study in the field of arts and crafts that is of professional caliber if carried through the senior high school years. It has been given advanced credit in various colleges and art schools.

In some ways more important than the advanced work carried on by those preparing for professional training or for presenting art as a subject for entrance to college is the creative use of art by practically all pupils in connection with their other activities. The teachers in this department use every opportunity

to relate their work to what is going on in the other departments, and the pupils themselves, with the encouragement of teachers in other fields, use their arts and crafts to enrich and give meaning to whatever they are doing.

The history of the art of a period is commonly related to the historical content of the social studies. Also, the pupils are likely to cartoon the events of a period, illustrate their research papers, and supplement with pencil, paints, clay, and even wood and metals what they study and explain in words. In English similarly, the characters of a play or story may be modeled or drawn, the scenes may be painted, the locale may be illustrated. Even in mathematics pupils often draw real scenes in which to place their solutions of triangles and illustrate their papers on the achievements of great mathematicians. In the same way foreign languages and science make use of the pupils' interest in using their hands in cooperation with their minds.

A research being carried on in this department concerns the stages of development through which pupils pass in using arts and crafts as a means of expression, and the degree to which signs of special ability, or the lack of it, can be recognized at various levels. The department has samples of the work of some pupils from kindergarten to art school, and of many through enough years to have significance. These are being studied in the hope that some light will be thrown on what are normal expectations, broadly interpreted, at certain age levels, and what indications of ability can be used to advantage in the guidance of pupils.

*Music.* This department is also one of importance. All pupils in the school take some work in music as a regular requirement. The minor course includes appreciation based on listening and discussion, the elements of music, and choral singing. The school has a fine library of records and the influence of a large faculty of musicians and the musical opportunities of Boston combine to make the equipment for the appreciation of music unusually adequate.

There is a major course in music, elective for from one to three years. This is equivalent to any other full course and is offered

for entrance to college on a basis equivalent to that of any academic subject. The theoretical part of the major course includes advanced work in theory, leading to harmony and composition; it is taught with great flexibility in fitting it to individual pupils. The older pupils are doing work of such fundamental importance that those who take the complete course are able to omit elementary work if they continue music in institutions of collegiate grade after graduation.

Pupils may study the piano or any orchestral instrument and may take individual singing lessons. Facilities are also provided for practice at the school in soundproofed rooms.

Orchestras and choral and glee clubs give opportunity for many to participate. Records of chorus singing made and played to the pupils at a class or rehearsal have proved of great value in improving pitch and tone. The orchestra also uses its own recordings for study of its deficiencies.

There is being carried on in this department a research undertaking that is not really a part of the Eight-Year Study but is nevertheless related to it. It is an attempt to find out what possibilities there are in the tunes and rhythms originated by pupils, from young children to those in secondary school. The tunes hummed and sung by young children are being studied with the thought that it may be possible to develop original expression through music on the simple foundation of a young child's natural responses. Work with older pupils is related to the project in the English course of Grade X which has already been described. While this study is being made with no thesis for or against the values inherent in the children's music, there is already evidence that much can be gained by some of the methods that are being tried.

The principal change that has come about in this department through the Eight-Year Study has been that of encouraging pupils gifted musically to take a full course of music in the school even though they are planning to carry on their work in academic colleges. It is believed that a pupil who may specialize in music perhaps to the extent of making it a lifework should have made a good start by the end of the secondary school years. That this

can be done not only without detriment to the work in college but also with definite benefits to the pupil concerned has, we believe, been amply proved in our experience.

*Drama.* A course in drama is elective for from one to three years. It includes the history of drama, with consideration of the drama in various countries, drama as literature, and the theory and practice of dramatic production. In the last is included scenery, lighting, acting, backstage work, the writing of plays and producing of them. While much of this must be of an elementary character, pupils who have had the course have an unusually advanced knowledge of the various problems connected with dramatic production as well as of the place of drama among the arts.

The school has a completely equipped theatre that seats almost 800, as well as facilities for making scenery and costumes. The stage is furnished with blocks for the quick setting up of simple scenes and a model stage with blocks built to scale is available for practice work in designing scenes. There is also equipment for giving plays by radio.

In the Upper School there are two drama clubs, to one or the other of which almost all the pupils belong. These clubs present plays both at assemblies and as public performances, and the members help the various classes or departments with their dramatizations. As with art, drama is not confined to a department but is used freely by the various fields of activity. Dramatizations may be written, staged, and played by the pupils of any division in the school, either a grade division, a subject group, or a department. Such dramatizations, for example, have been given by an algebra class on the meaning of algebra, a social studies group on the conduct of committee work at the Massachusetts State House, by the Music Department, each of the foreign language classes, and of course by English classes.

The courses in drama are given full credit by the school and are offered for college entrance on an equality with those in any other subject.

*Homemaking.* In the intermediate grades, foods and clothing are a regular part of the curriculum and all of the girls in the eighth grade take homemaking. After that the work is elective,

consisting of minor courses that fulfill the handwork requirement and a major course that may be taken for from one to three years.

The major course includes the study of financing, building, equipping, decorating, and maintenance and management of the home. There is much interest in the study of family relationships and child care, with opportunity for observation in the nursery school and kindergarten. Problems concerning nutrition and the selection of clothing and accessories of dress are included. Consumer problems are studied with emphasis on source material of value to the consumer. Practical laboratory work in foods and clothing is given, and the course is made more vital by field trips and moving pictures. Social values are emphasized by the study of low income groups and problems of housing, and by making articles for the Red Cross and taking part in other projects that have a social purpose. This course is given full credit and is offered for college entrance.

In the study of clothing in the minor course, textiles are investigated as to source, manufacture, cost, and uses, and skills and techniques are mastered and put to practical use in the making of a variety of interesting and valuable articles. Attention is also given to personal problems and individual analyses are made as a basis for studying suitability of wearing apparel. Social values are also emphasized by carrying out projects of value to outside groups.

There are four practice kitchens completely equipped where meal preparation and serving is carried out, and every opportunity is utilized for preparing and serving foods for school occasions. A careful study of nutritional needs of the individual and family is undertaken with practical work in menu planning and marketing.

In this field also there is much opportunity for relationships with other subjects. Costumes are designed and made for drama and assembly productions; correlation with social studies, English, science, and art are frequent; and the work is planned to broaden the pupils' outlook on life and its problems, rather than to emphasize skills only.

*Program of Activities.* An important feature of the school is the degree to which all the recognized activities of the pupils are



nade a regular part of the day's program and are given places in the schedule. Glee club, orchestra, publications, drama club, other clubs, class meetings, student body meetings, rest periods, physical education, and instrumental and vocal music lessons and practice are all a part of the program and every effort is made not to interfere with them except as any part of the schedule would yield to a special demand.

A faculty committee receives requests for trips or other activities that infringe on the day's program, that would use special facilities or rooms, or that would require special arrangements. It decides on the feasibility of the plan, and refers the arrangements to those who are to work them out. The fact that there are 75 places in Boston and its neighborhood to which trips are made shows to what an extent the faculty is using outside sources, and what necessity there is for a committee to judge the proposals and to insure a schedule that will avoid unnecessary conflicts.

Some activities, perhaps particularly trips and dramatizations, are likely to be cooperative enterprises undertaken by two or more departments. For example, a trip might be sponsored by the teachers of science and social studies because it would furnish material for use in both subjects.

The scope of the physical education deserves special mention. A large department of teachers trained in this field cares for the pupils during recreation periods, which are a regular part of the school day. Many playgrounds, an out-of-door gymnasium, and playrooms in the building give space for the activities. There is a wide range of sports for each season, and each girl is expected to participate in team games and in some individual activity that can be carried on in later life.

While there is interclass competition, there are no competitive games against other schools. The girls do take part in "play days" on the school grounds and elsewhere at which pupils from several schools play games together.

The efficient work of this department in safeguarding the health of the pupils and building them up physically has created favorable condition for the work done under the Eight-Year Plan.

*Assemblies.* The assemblies are an important part of the school

morning, short opening exercises in home rooms are used on the other days, and an assembly an hour long is held on each Wednesday afternoon.

Most of the assemblies are given by the pupils, and pupils preside at all of them, even those in which a lecturer or an outside group presents the program. The Monday morning assembly is of a serious nature. The presiding pupil leads the pupils in the school prayer; another reads, usually from the Bible, sometimes from another religious or philosophical writing; and a third pupil speaks about the text read. The rest of the time may be used for any constructive program with a religious, moral, or social purpose.

The Wednesday program is most often presented by a grade or a class, and it is frequently in dramatic form.

Participation in the assemblies is expected of all pupils and is considered a part of their education. Every pupil in the Upper School took part in the assemblies last year, the average number of participations per pupil being over four. The pupils all took part also in the opening activities of their home rooms.

*Preparation for Citizenship.* The school has always believed in the importance of preparation for citizenship, and has tried increasingly to emphasize it. Much is done toward it in all the classes, and it is a fundamental objective of the course in social studies.

In addition, however, the school attempts to be a "practice community." Classes are organized, even in the Lower School, with their own officers and committees, and the intermediate department, junior high school, and senior high school have student councils elected by the pupils and committees appointed to carry on student body business. There are weekly class meetings and monthly meetings of the student bodies in senior high school and junior high school, and the pupils learn the procedures of business meetings while they consider their own problems and the problems of the school in general. The senior high school Student Council in particular carries a great deal of responsibility. Its recommendations to the school executives are very likely to be adopted, and it has the authority itself to carry out much that it considers important. A court of students and faculty repre-

sentatives acts on cases referred to it by the Council; the dining room committee is very active, and in other ways this group functions much as does the corresponding body in an adult community. Of considerable importance in this connection is the degree to which privileges can be won by achieving a responsible and conscientious attitude as judged by teachers and members of the Student Council. Pupils in the twelfth grade usually have a degree of freedom comparable with that enjoyed by college students, though they do not leave the school grounds.

Other organizations, such as the glee club, orchestra, and drama club, are also democratically organized, and the pupils have excellent experience in such activities as presiding at all affairs given for the student body or the public. The Athletic Board also carries important responsibilities and gives opportunity for the consideration of problems that concern physical education.

An important advantage of the Eight-Year Study has been its stimulation toward greater participation by the pupils in curriculum revision, considered as a service to national education. All pupils in the secondary department have a share each year in the reconsideration of what is being done, with opportunity to point out lacks as well as to suggest deletions or other changes.

The school finds itself handicapped in respect to providing actual participation in out-of-school community life. It is located in one of the most completely serviced towns in the United States, and it draws its pupils from about fifty scattered communities. Consequently, although it can take its pupils to see governmental and other community activities in operation, and can show conditions for low income groups in the metropolitan area, it cannot find much that is genuine in the line of actual service to a community.

Certain responsibilities for philanthropies are assumed, but they are met principally through contributions to local and distant agencies. Some handwork for the Red Cross and the Family Welfare Society is done in the school, and classes have taken responsibility for such matters as the care of poor children on Saturdays and for singing in hospitals.

It is reluctantly recognized, nevertheless, that productive participation in the work of the community is still lacking.

*Evaluation and Recording*

In the first years of the study the pupils took quite a large number of tests constructed by the Cooperative Test Service and scored by the Educational Records Bureau, and throughout all of the years some of these tests have been continued. This is true despite the fact that in many of the tests the influence of the subject matter pattern seems to be shown in the results. However, the school wished to know what it might be sacrificing as well as what it was gaining by changing the courses, and therefore was ready to use any examinations that would throw light on the progress being made.

From its founding the school has used the tests for scholastic aptitude, particularly the Stanford Binet Test and the psychological examination of the American Council on Education. The new Thurstone Tests on Primary Mental Abilities have also been used.

Close touch has been kept with the work of the Evaluation Staff, and under the advice of this Staff batteries of tests for power have been given and the results have been analyzed for indications of strength and weakness and of modifications that should be made in subject matter and methods in the various departments.

The school has used the record forms developed under the Committee on Evaluation and Recording, and in so doing has made very careful studies of its pupils, using those studies for purposes of guidance as well as for reports to other schools and to colleges when pupils were transferred.

For entrance to examining colleges pupils have submitted Scholastic Aptitude Tests and the Comprehensive Examination in English. Those who have been in the school not over two years have taken an examination in French as well, the usual one being the four-year examination. Occasionally a pupil has offered one or more other examinations because of some special reason that made it seem desirable.

Perhaps more important than any methods of testing or even recording facts about pupils has been the combination of the awareness of the faculty to the need for studying the degree to which their objectives were being accomplished, the cooperation

of the pupils in reporting on the value of their own experiences in the school, and the follow-up of the graduates in college or other advanced institutions or in activities outside of educational ones. Questionnaires have been used with graduates engaged in advanced work and with pupils in the last four years of school, teachers have made reports and discussed the advantages and disadvantages of each thing being done, and various people dealing with the school's graduates have been interviewed.

The information derived from these various sources has served not only to point out mistakes and emphasize values but also to give evidence regarding the worth-whileness of the whole undertaking and of the changes that came about in the school's curriculum.

### Results

It seems impossible to separate entirely the results that might have been obtained even without the Eight-Year Plan from those that are dependent on the freedom given by it. There can be no doubt, however, that all progress was accelerated by participation in the Study and that much of real value would have been impossible without it.

The faculty members have worked with an enthusiasm, a willingness to analyze problems and their possible solutions, and an untiring determination to find better ways of carrying on their work. They are a unit in giving credit to the stimulation provided by the Study and in their belief in the value of the results obtained. No one of them would be willing to return to the more limited and more closely confined curriculum and subjects with which they worked before the plan started.

The pupils have been interested and helpful in the undertaking. They have been ready to criticize subject matter that seemed not to justify itself or methods that did not offer reality. It has not always been easy for them to increase their own responsibilities, to learn to investigate a subject demanding a long period of research or hold their minds to carefully thought through logical processes. Nevertheless, they have tried to accomplish these things and have made marked progress.

The parents have been interested and cooperative and they

have, on the whole, welcomed the greater opportunity to fit the needs of their children.

The evidence of the tests of power taken by the pupils in successive years shows that there has been a marked gain, particularly in accuracy of reasoning. Pupils who have gone to college have done well despite the fact that they had taken combinations of subjects quite often markedly different from any that would have been acceptable under the usual requirements. Many have achieved advanced standing in various fields and have been able to hold their own with the older students with whom they worked. Many more than could have been expected to do so have reached positions of responsibility, such as membership in student governing bodies. We are not trying to make a definite report on college success because that report is being made by the Evaluation Staff for the whole group of schools. We can say, however, that we are convinced that our pupils have gained greatly by the increased freedom allowed them.

An interesting development is the greater flexibility and intelligence with which pupils choose institutions for further study. There is less insistence on a particular four-year academic college if the pupil's plans are not best served by the opportunities it offers, more use of colleges in other parts of the country, of junior colleges, and of conservatories and art schools if they serve pupils' purposes more adequately.

The forms developed by the Recording Committee have been of great assistance to us in enabling us to study our pupils more intelligently, to keep permanent records that can be used at any time, and to inform the home, the college, or any other inquiring agency about important characteristics of behavior.

### *Summing Up and Recommendations*

We are convinced by both objective and subjective evidence that more vital and more definitely valuable experiences are being given to our pupils than we were ever able to give them when the curriculum was so largely determined by college entrance requirements and examinations. It is not possible to determine absolutely in the early secondary years, and often not before the end of the course, whether or not some pupils will be candidates

for college. Consequently, outside of the Eight-Year Study, the college preparatory curriculum must be given to all doubtful cases, as well as to all who are planning toward college. The more restrictive entrance requirements are, the less effectively does the experience to which pupils are confined meet the varying needs of adolescents either for their school years or for their futures.

If, as we believe has been amply demonstrated, there are very few *general* subject prerequisites for college work, perhaps only the ability to use the English language well, there is no reason for specified subject requirements that apply to all candidates.

There are, of course, prerequisites for certain college courses and departments, such as mathematics for one who is to take engineering, a reading knowledge of a modern foreign language for use in some courses that require research in books written in other countries, or Latin for those who wish to specialize in linguistics. Such prerequisites for election of particular courses in college, since each set fits the abilities and aims of particular pupils, are not too restricting to a school or to pupils in general.

We believe it is necessary that schools have the greatest possible freedom for meeting the needs of their pupils, and particularly for giving them the experiences and the all-around training that are required for intelligent living in the world of today, and that this makes it essential that great latitude must be left to the schools by all institutions to which they send their graduates.

We recognize, on the other hand, that the advanced institutions must be able to discriminate between acceptable candidates and those that are not acceptable.

Our recommendation, based on the experience of these years of freedom, is:

1. That subjects, except English, be not required for entrance to college, though they may be required for election of college courses for which they are honest prerequisites.
2. That, for the examining colleges, a Scholastic Aptitude Test that does not presuppose particular amounts of any subject, such as mathematics, and the Comprehensive English Examination be required.
3. That a school record that includes a careful study of the

candidate's behavior and characteristics be required, with prediction of the pupil's probable success in various fields, and other information that can serve as a basis for guidance as well as for decision about admittance.

4. That colleges that need further information about a particular pupil or from certain schools shall require confirming evidence by either comparable or comprehensive tests of power and information taken at the school or elsewhere. These tests should be ones that do not depend on the particular pattern of subjects or even of subject matter in a field.

We have confidence that such a program would open the way for further improvement of secondary education in the United States, and would at the same time give the colleges ample evidence on which to base acceptance or refusal of candidates.



## BRONXVILLE HIGH SCHOOL

BRONXVILLE, NEW YORK

Brxville is a suburban village of 7,500 population, with 1,600 pupils in its schools, of whom 400 are in the senior high school. In the last seventeen years 75 per cent of the 1,025 graduates have entered institutions of higher education. Another 15 or 20 per cent have continued their education at art, music, or dramatic schools or in secretarial and technical schools.

We adopted as our educational philosophy these commonly accepted principles of democracy:

1. The school must be organized in a democratic pattern that recognizes the dignity and worth of all individuals concerned: pupils, parents, teachers.

2. All individuals must have the opportunity to develop their capacities and interests except where such development runs counter to the welfare of others.

3. Our American democracy, which guarantees such extraordinary opportunities for individual freedom and great social privileges, can be maintained only as we reinterpret it, and implement it in our common life.

4. Every individual in a democracy must learn to direct his own thinking intelligently and his own acting in the light of the broader social good.

### *Objectives*

As bases for the reconstruction of our curriculum we recognized the need of the individual for a fuller development of his powers, his need for orientation in the world in which he lives, his need for an altruistic yet practical philosophy. Our program, therefore, has been planned to promote fundamental understandings, to train in necessary techniques, and to encourage desirable attitudes.

In the view of our school there are three possible approaches

to every situation in life—three idioms, so to speak, which the student must learn: the scientific, in which exactitude and definition are essential; the political, which is a compromise between the ideal and the possible or expedient; and the artistic or aesthetic, which involves sensitiveness to beauty. Many people are so constituted that they approach every situation from the same angle, whether or not it is the most appropriate or the most likely to secure the happiest results. But a truly educated person knows each of these various languages (science, art, politics) and adapts his approach to the situation.

In the senior high school curriculum, which we put into effect in the fall of 1933, we provided, therefore, three-year sequences in science, in human relations, and in language, literature, and fine arts. These sequences, which are described in some detail later in this report, are in the opinion of our faculty a substantial foundation for a liberal education.

In acquiring knowledge and understandings, individuals must develop certain habits, techniques, and skills which make them strong and healthy in body, sound and alert in mind, stable in emotional responses. Our Physical Education Department, our medical staff, our teachers of science and home management, cooperate to develop in every pupil physical fitness, vigor, and poise. They aim to establish proper health habits and attitudes in daily living.

All teachers in all fields are expected to assume responsibility for the development of intellectual skills. They must make provision for the practice of reading, writing, and computation. They must all take the responsibility for teaching the increasingly complex techniques of study, of observation, of logical thinking. In our efforts to improve the quality of the thinking of our students (as well as our own), we have had the generous cooperation of Dr. Ralph Tyler and the members of his Evaluation Staff. In our opinion their contribution alone justifies the time, energy, and expense involved in carrying out the Eight-Year Study.

The third aspect of the development of right habits concerns emotional stability. Emotional patterns are more or less established by the time a boy or girl arrives at the secondary school,

determined by all his life experiences at home and out of school. But at adolescence the emotional adjustment of the pupil in his wider social relationships is often the determining factor in his success or failure. Our home room organization, with an advisory teacher in charge of 25 to 30 pupils for a period of two or three years, or even longer, is the means we have used to establish for each pupil a home center in the school where his personal problems can be considered, and his needs discovered, and where he may have the opportunity of cooperating in a small group in some activity that is of interest to the group as a whole. In addition, we provide a wide variety of activities, athletic, forensic, dramatic, musical, creative, and social, in an attempt to satisfy the normal drives of the adolescent for expression, and his craving for recognition.

In addition to developing understandings and inculcating habits and skills, we have undertaken so to educate the individual that his attitudes will be characterized by independence, sympathy, sensitivity to truth and beauty, and magnanimity.

Through these three means, which involve understandings, techniques, and attitudes, we hope to arrive at our ultimate objective—the well-developed, self-directing, social-minded individual, with an integrated philosophy of life.

### *Broad Fields of Study*

*Science.* In the development of democracy in America no one factor has been more potent than science. As Roger Burlingame points out in his *Engines of Democracy*, the United States which emerged from the Civil War has been welded into a nation not so much by wars, treaties, and politics as by invention. Mr. Alfred Whitehead is of the opinion that great changes are wrought by a double force: an external or natural compulsion, like an Ice Age or the drying up of a continent, and an internal compulsion, an Idea. He suggests that in our case the external or natural force is Steam, and that the internal compulsion or idea is Democracy. These are influences profound enough to stir up a world ferment, and they may be expanded still further. It would appear that Steam, by which term Dr. Whitehead blankets technology or industrial invention, is only one aspect of a wider

and deeper force, Science; and that Democracy, again, is only one aspect of a wider and deeper force, Christianity.

The three-year science sequence includes those aspects which concern all individuals, eliminating those of interest only to specialists. In the tenth grade we study the human body, its nature, its functions, its evolution; in the eleventh grade we center attention on the nature of the environment and the uses man has been able to make of natural forces; in the twelfth grade we consider the relationship of man to his universe of time and space, including in our study the development of man's knowledge of the earth and other bodies in space, with particular stress on the constant change that is going on in the universe, the process of evolution. We have attempted to make the science sequence satisfy the need of the students to know more about themselves and the world in which they live, to give them some idea of the social implications of science, to give training in the scientific method of problem solving, and to create attitudes favorable to the constant and efficient use of that method. The attitude toward science which we aim to foster might be stated as follows: The controlled experiment, and the application of the result of such experimenting to living, is man's latest and greatest intellectual tool. It has differentiated him from all other forms of life, in that he has gained the possibility of some control over his own destiny.

In the tenth grade, activities are focused on the personal life of the adolescent boy and girl. These activities concern the daily experiences of the student, from the diet of the athlete to the responsibility of the individual for the health of the community. The course aims to develop knowledge of one's self as a biological organism, the biological history of the race, possibilities for the future (genetics and eugenics); knowledge about and practice of habits that tend toward healthful living; and a greater understanding of human nature and human behavior.

The eleventh grade course involves a survey of the physical environment and a study of some aspects of the nature of matter, of changes in matter, and of energy. It includes also a study of the uses man has made of the forces of nature, the effect of these applications of knowledge on the life of our day, and the pos-

sibilities of changing present conditions of life by further discoveries of the behavior of matter and energy.

The twelfth grade course includes the study of the nature of the earth and the changes in its surface and life forms, the atmosphere, the moon, the planets and their satellites, the sun, other stars and our galaxy, the nebulae and modern cosmology, the frontiers of science, and a critical evaluation of the methods and limitations of science.

Understandings such as these should result in an appreciation of the interrelatedness of the fields of science, a willingness to experiment and to accept the conclusions reached from experiments, a critical attitude toward authorities, recognition of the fact that all theories are tentative and all truth relative, and an awareness of the possibilities open to man through his understanding of the laws of life.

*Human Relations.* Our second broad subject matter field is the man-made world of constantly changing social and political institutions.

Seventh grade pupils approach this field through a study of their own community, broadening their background in the eighth grade with a survey of the development of American institutions from colonial times to the present, continuing in the ninth with a comparison of American culture with European cultures.

The tenth grade begins the three-year sequence in the senior high with a study of world history, a survey of the development of human institutions among different races and peoples. The emphasis is on the important contributions of particular races and nations to government, to economics and industry, to knowledge and education, to art, to religion—to all the vital concerns of communal life. This study involves a continuous comparison of other cultures with our own.

Certain concepts are fundamental to the study of the social world and these concepts are emphasized on every grade level. Some of these concepts are the changing nature of the social structure, the tensions growing out of uneven rates of change within the social structure, the complexity and interdependence of that structure, the peculiar problems and particular contributions of other groups and peoples, the effect of economic forces

on human nature, the nature and significance of the social heritage, and the possibilities of using natural and social forces to improve society.

The courses in social studies, or human relations, as we prefer to call them, afford rich opportunities for developing skill in obtaining information, analyzing data, drawing logical inferences, organizing material, and expressing ideas effectively.

These skills are practiced by tenth grade students when they choose a particular topic—family life, trade, religion, amusements, or other aspects of culture—and follow the development of that aspect through various epochs. They are put in practice also in the eleventh grade study of contemporary developments and trends, economic, political, social, and cultural.

These skills of gathering material, evaluating and interpreting it, are most essential, also, in the twelfth grade study of American history and problems. The study of social, economic, and political problems begun in the eleventh grade is continued in the twelfth with stress on causes and origins, proposed solutions of problems, and implications for America's relations with the rest of the world.

The development of tolerant attitudes, loyalty to the basic concepts of American democracy, a desire to improve the social structure, an attempt at the formulation of a sound personal social philosophy, and a willingness to modify conclusions in the light of further evidence—all these are the objectives toward which the study of human relations is directed.

Participation in group action and deliberation is encouraged through the use of class discussions, assembly discussions, and adult forums. Radio programs and moving pictures as well as books, magazines, and newspapers are used as the bases of these discussions.

*Language, Literature, and Fine Arts.* The third broad subject matter field is that of language, literature, and fine arts. English with us, as with most schools, includes instruction in and the practice of the basic language skills as well as knowledge and appreciation of literature. We have, however, modified our procedure in the approach to both these aspects of the teaching of English. First, we have assumed that the development

of language power is the province of all teachers. We hold the English Department responsible for teaching the techniques of language and the mechanics of expression, but we are convinced that training in language per se will have no point unless teachers in every field emphasize thoughtful reading and clear expression of ideas. Second, since the ideals of a race are preserved in their music and their art as well as in their literature, we include all the arts in our third broad field of study.

1. *Language.* In a civilized society, especially in a democratic society, intelligent living depends upon the understanding of basic concepts and the communication of ideas about these fundamental concepts. We have organized our whole curriculum with the purpose of giving to our students some grasp of the three idioms men speak: the languages of science, of politics, of ethics and aesthetics.

To become expert in the understanding and use of words is to become to some degree at least an educated person. Reading and writing, far from being elementary subjects, are the most complex and thought-compelling of all studies.

At the various secondary school levels we have attempted to discover the common purposes for which students read. For example, we have found that in work-type reading pupils want to acquire information, to find answers to questions and solutions for problems, to find a basis for opinions or conclusions. In leisure-type reading they seek entertainment, they crave excitement and adventure, they like to know how people lived in other times and other lands, and how men and women have won their way to success.

To attain these ends they must acquire certain skills. They must, for example, learn how to find the central thought, to discover key words and sentences, to discriminate between general principles and specific details or illustrations, and to vary their rate of reading to suit the type of material and the purposes they have in mind. If they are to read with any degree of appreciation the artistic interpretations of life revealed in books, they must learn to read curiously and critically; to read between the lines; and to read with imagination, visualizing sciences and actions.

Similarly, in regard to the expression of ideas, we have attempted to discover the situations in which pupils at various stages of their development need or desire to communicate ideas. Further, we encourage them to do creative work; to express their own reactions, reflective or emotional or imaginative, to life as they are living it.

Having discovered the purposes for which they need the power to express ideas adequately, we give them the opportunity to learn the necessary techniques. We emphasize the skills necessary for effective speaking and the qualities that make speech distinctive: clear enunciation, pleasing tone, correct usage, adequate vocabulary, logical organization, clarity, sincerity.

In written expression we insist upon mastery of the minimum essentials of correctness in grammar, punctuation, spelling, good usage, and sentence structure, and we attempt to develop increasing mastery of vocabulary, of the principles of organization, of all the qualities that make writing effective.

We are acutely aware that power in the use of language develops as the individual develops in understanding and in appreciation. Language is at once a means to the attainment of these ends, and one measure of the degree to which life has meaning and significance for the individual.

2. *Literature and the Arts.* Individual development depends not only on personal experience and on vicarious experience through literature, but also on the clarification and interpretation of that experience. Literature reveals the human implications of the physical environment, the impact of social and economic forces on human life, and the determining influence of the moral and ethical standards of a given period. Therefore, while a part of our course in literature is "free" reading, a part is "directed" reading. Even in the directed reading, except for books read to furnish a common group background, there is a wide choice within the limits of the broad concepts selected as centers of interest and attention in the various grades. The student is guided from literature to history and science that he may understand his complex cultural heritage and be imbued with a sense of abiding human values which he must help to preserve.

We make use of the material presented in other broad fields.



In the seventh grade the work centers around the community; its geography, its industries, its institutions. Here we use books dealing "With the Men Who Do Things"—to use Russel Bond's title. In the eighth grade in connection with the study of American history and biography we read books about our great statesmen, scientists, and heroes. In the ninth grade we correlate literature and social studies in an attempt to develop a conception of the demands made on the individual by the social institutions of a democracy.

In the senior high we endeavor to arouse interest in literature of a wider scope in time and place, of a greater variety of types, and of widely divergent approaches to life, and thus to help the student choose for himself books that will be significant for him.

In the tenth year literary interpretations of the American philosophy of independence parallel the study of physical and economic needs in our pioneer and industrial periods.

In the eleventh we present literature revealing common English and American ideals of the social responsibility resting upon each individual in a democratic society. We compare sixteenth and eighteenth century poetry and drama and essays with modern to show the influence of the spirit of the times on the spirit of the man. We offer here also a brief survey of the development of painting, sculpture, and architecture, with emphasis upon Renaissance and eighteenth century artists, because the art of these periods fills in the background of the life revealed in the literature we study.

In the twelfth grade we make every effort to develop an appreciation of the continuity and living quality of great art, as the interpretation of the human impulses that have molded history. We study the common elements of poetry and music: rhythm, melody, harmony, and form. We use the work of Johann Sebastian Bach as the master of the classic school, Tschaikowsky and Brahms as representatives of the romanticists. We compare the effectiveness of the various arts as interpretations of human life. Through the artist's presentation of suffering and hope and aspiration, we attempt to offer the means by which our boys and girls may interpret their own experience and formulate their own philosophy.

### *Organization and Procedures*

When we began our new work in 1933, we confined our attention to the revision of the curriculum in the senior high school, and we enrolled in the new sequences only those students whose parents expressed a willingness to embark on the new adventure. Thirty-one students, about a third of the tenth grade class, were enrolled in the group. Until 1939 the revised sequences in social studies and science and the traditional courses in history and science were maintained separately. Since 1939 there has been only one curriculum with a choice of courses in eleventh grade social studies and in eleventh and twelfth grade science, in addition to optional courses in mathematics and foreign languages, to meet the needs of particular students. Moreover, the junior high and the senior high are now coordinated in a six-year program.

From the inception of the study in 1932, the faculty has taken the responsibility for formulating the educational objectives of the school and the educational program. The faculty determines policies and procedures.

The faculty members who work with the various grade groups meet together once a week, during the school day, to become acquainted with the current work in each department and to discuss the needs of particular students. Through this means there is a natural and unforced integration in the work of each grade group. The three grade groups meet together and with the entire faculty when matters of concern to the whole school need to be presented and discussed. Procedures and courses are thus constantly evaluated and modified as experience and practice demand.

The chairmen of the subject matter fields hold their own meetings with teachers from all grade levels, elementary, junior high, senior high, so that there is an understanding by all of what is being done in a particular field throughout the school. These groups decide what experiences will be most fruitful for the various grades, and select the textbooks as well as the materials to be used.

As far as the students are concerned, there is a definite at-

tempt to make each student a cooperating member of the social group, sharing in group responsibilities and school activities. Each home room has representation in the Student Council and may instruct its delegate to bring to the attention of the Council any matter that concerns the student body. In turn the representative brings back from the Council to the home room reports of discussions and action. The Council assumes responsibility for the very extensive social program and manages the school athletic contests. The Council is a deliberative body, and an executive body when their resolutions are approved by the school administration.

A new development this year [1940] is the organization of an All-School Council with representatives of the Student Council, the faculty, the business office, the Board of Education, and the Parent-Teacher Association. There are as many student members as adult members. This All-School Council will discuss matters of vital concern to the school community and will be an executive as well as a deliberative body.

### Guidance

The home room is the center for group activity as well as for individual guidance. Home room periods provide units of instruction in Health, Diet, Study Skills, Library Skills, Vocational Guidance, Choice of College, Personal Budgeting, and Personal Relationship, where a need is felt for such learning.

From the time the students enter the school, records are kept concerning their health, scholastic ability, academic achievement, individual interests, and plans for the future. These records are used by teachers, advisers, and administrative officers for guidance purposes. In the elementary school these records are in the form of descriptive reports by the teacher, with comments by the parent; in the junior high there are records of tests, activities, summary reports by advisers, goal cards which indicate academic progress, and a reading record; in the senior high there are all these, and in addition there are the behavior descriptions in terms of the traits suggested by the Records and Reports Committee of the Progressive Education Association. The goal sheets carry the record of the work done in each course,

with comments on the quality of the work, and ratings. We use for these ratings the descriptive terminology suggested by the Records and Reports Committee, checking quality of work done: (1) with distinction, (2) very well, (3) creditably, (4) with passing grade, (5) not satisfactorily. Every effort is made to help the student to discover his own strength and his own weaknesses.

We are more concerned with the causes of maladjustment than with the evidences of them. We have in the school a guidance counselor and a part-time psychologist, to either or both of whom difficult cases may be referred, but in most cases we are inclined to rely on the teachers and advisers and administrators to exercise common sense and to deal fairly and sympathetically with pupils in difficulty.

### *Evaluation*

Evaluation is an integral part of both the learning act and the teaching act. In the effective learning process, the learner is constantly checking the degree to which his objectives harmonize with his general pattern of values and the degree to which the methods he is utilizing are resulting in the achievement of his chosen objectives. Likewise the teacher finds that there are two aspects to evaluation, one, primarily philosophical, having to do with the harmonizing of objectives with the general educational framework, the other having to do with determining the effectiveness with which the objectives are being attained. These two aspects of evaluation are mutually interdependent and in varying degrees are constantly a part of the teaching process. While the supervisory and administrative staffs should share in periodical organization and summary of the appraisals which have been made, the continuous evaluation of pupil development should be made by those who have firsthand contact with this development; namely, the classroom teachers.

Such a concept of evaluation calls not only for the utilization of standardized tests where such are available, but for close observation day by day and the development of the greatest possible knowledge and understanding of the individual pupils on the part of the teacher.

Since the beginning of the Eight-Year Study, our teachers have met in small groups to pool the information which would make for the optimum understanding of the development of pupils. In these group conferences from time to time there developed certain comparisons between the revised curriculum and the traditional curriculum groups. The judgment of the teachers coming into contact with both these groups is that the new curriculum pupils have tended to:

1. Participate more in selecting their objectives and the means by which these objectives can be achieved.
2. Be more critical of their objectives and procedures.
3. Display more initiative in their work.
4. Accept more responsibility in carrying through their work.
5. Develop more facility in the techniques of elementary research; i.e., locating data, weighing data, organizing data, drawing inferences from the data.
6. Read more in connection with their school work.

We have objective evidence also on the development of logical thought processes on the part of our pupils. Tests made by the Evaluation Staff on Social Problems and on the Interpretation of Data were given to the students working under the Eight-Year Study and to those in the traditional curriculum in 1938, 1939, and 1940. In all cases the students working in the revised sequences made significantly higher scores than the corresponding groups in the traditional curriculum.

For certain of these tests the Evaluation Staff was able to furnish comparative data from other schools. Here again, the median score of the "new curriculum" groups was definitely superior to the groups available for comparison, as well as to the "old curriculum" group in Bronxville. The fact that in the social studies sequence of the new curriculum there is much stress upon problem solving and upon the critical evaluation of controversial issues, in all probability, accounts for the high scores.

From other sources, also, we have evidence that students working under the revised curriculum made certain gains not made by students in the traditional curriculum. Since 1933 our students have taken the American Council Psychological Examination and the Educational Records Bureau subject matter tests.

In the 1938 report of the Bureau on the subject matter tests given in April there appears this statement:

More than two-thirds of the twelfth grade students exceed the public school median for Grade XII in total score on the Cooperative English test. . . . In the new curriculum group thirty-eight of forty-three students (88 per cent) are above the public school twelfth grade median.

In the 1939 report on the Cooperative English Test there appears the following statement:

The median total score for the New Curriculum eleventh grade group is more than five scaled score units above the median for the Old Curriculum group, but even the Old Curriculum median is a little above the independent school median for the eleventh grade. . . . The New Curriculum group at the twelfth grade level has done especially well with the English Test. Although the median Psychological percentile for this group is only 41.3 as compared with the median of 48.8 for the Old Curriculum group, the median total score of the New Curriculum pupils is considerably above both the independent-school median for Grade XII, and the median for Old Curriculum pupils.

The Cooperative Contemporary Affairs Test for 1939 was not ready in time to be given to the independent schools, but was taken in Bronxville by 63 new curriculum students. This is the Bureau report on that test:

It is interesting to note that all but four of the sixty-three pupils who took this test (in April) have total scores that are above the tentative end-of-the-year public school median. The scores of the various individuals on the different parts of the test provide some indication not only of achievement, but also of interest in the various aspects of contemporary affairs.

It is apparent, then, on the basis of both subjective and objective evidence that the revised curriculum of sequences in broad fields offers an educational experience superior to that which we were giving prior to the beginning of the Eight-Year Study. That is the reason we have adopted the sequences in broad fields as a basic curriculum for all students, to be modi-

fied and supplemented by the choice of elective courses for students who must meet special requirements.

The representatives of the College Follow-Up Study in the Eight-Year Study have reported on the college record of 39 of the 140 graduates of the new curriculum in 1936, 1937, and 1938. These 39 students were enrolled in 16 different colleges. They may or may not be representative of the whole group. In regard to these students, the College Representatives say:

Generally speaking, their adjustment to college has been normal and easy. Socially they are adept and democratic and seldom do they take themselves too seriously. They are not given to self-analysis or rebellion against college requirements. For the most part they find college an exciting place and find their place in it.

Summarizing the questionnaires returned by the Bronxville students, the College Representatives report that the students think "the New Curriculum was, in general, excellent preparation" (and this feeling seems to increase as they come nearer graduation from college). A minority feel that it was excellent as "education for life" but inadequate as preparation for college. In relation to other students in the Thirty Schools the Representatives say:

Bronxville graduates are first in these activities: Academic Subject Clubs (Art Club, Literary Club); Individual Accomplishment Groups (where group action may be important, but the individual has responsibility—as in acting, debating, student government). They stand second in Students Affairs (committees, campus politics); and Verbal Facility (organized discussion groups, debating). They indicate less trouble with study skills than any other school in the group. In Intellectual Activities (writing, research) they are sixth; in Interest in Contemporary Affairs they rank seventh. They rank twenty-fifth in Physical Activities and participate less than any other school in activities requiring Manual Skill. They are very far down the list, twenty-sixth in Aesthetic Activities (drawing, attending plays).

If I, as principal, were to attempt an Evaluation of the Eight-Year Study, I should place highest in the scale of values the growth in teachers. It would be impossible to compute the hours and the energy our teachers have put into the Study, al-

ways in addition to their regular schedules. Likewise it would be impossible to measure the added insight they have gained in regard to the needs of pupils, or their increased understanding of the relationship of their subject matter field to other fields, or their perspective on the whole educational program. Working together, they have evolved sequences in broad subject matter fields that are far better organized and much more unified than the former single units of work. None of them feel that we have found the solution for all educational problems.

### *What the Students Think*

As the final evaluation of our program we are allowing those who have been the most vitally concerned, the students, to speak for themselves. In the chance comments recorded here, and in the excerpts quoted from their written work, they reveal their growing understanding of the world they live in, their reactions to various artistic interpretations of life, their sensitivity to beauty, their idealism. The reader will find in their writing a demonstration that "the thoughts of youth are long, long thoughts."

In discussing the choice of a vocation one boy writes:

Of an almost infinite number of possible professions or occupations today, one must decide which are the most important, in which there is the most pressing need for advance, and devote himself to solving that problem. At the present time [1938] we see the world drifting uncontrolled into another cruel, bloody, and insane war. . . . On this same earth we find human beings starving. . . . These seem to be the most important problems in the world today; how to prevent war, and how to give every one the necessities for the sustenance of life.

In commenting on Logan Pearsall Smith's *The Starry Heavens* a student says:

Mr. Smith is indeed fortunate to have felt the "vast meaning" of the tremendous extent of the heavens. Very few of us ever grasp the meaning or significance of the immensity of space, and if we do, it is only at rare instants. I myself have felt it for a fleeting moment, and it was the most wonderful of my life. Thinking that I had been set down on this earth, perhaps the only place in the universe where life as we know it is possible, was a breath-taking experience.



At the end of their twelfth grade science sequence many students have written on the theme "What Science Means to Me." Here are quotations from such papers:

Aside from the understanding of the orderly nature of the world, and the exactitude of thinking of the scientific method, there is another, perhaps an important, result that comes from the study of science. It is the love of truth for its own sake. Few men other than those trained in science have the courage fearlessly to admit their own mistakes and to continue to attack unsolved problems with the one end of finding solutions. Instead of fighting for their own advancement, they fight for the increase in the sum total of human knowledge, giving credit where it is due, forgetful of personal accomplishments, glad to acknowledge and correct mistakes. If the study of science only implanted this state of mind in its followers, nothing else, it would be more than worth while; but it may not only accomplish this end, it can also make the mind into a sharp, clean, efficient instrument of thought.

It has been claimed that science is harmful to religion in that it cannot accept the idea of divine intervention in the affairs of man.

It does not need much proof to show that there is none, or at least precious little, of this intervention going on. The wicked and greedy are very often better off in worldly goods than the pure and noble. It is not in the province of science to speculate whether or not there be a life after death where justice is at last meted out, but it becomes increasingly evident day by day that there must be some form of social philosophy or religion to govern the conduct of men if they are to survive on earth. . . . The scientist sees perhaps more clearly than anyone else the need for a healthy spirit of cooperation and tolerance among all men. I think this basic principle of conduct is the most important part of any religion. . . . The scientist is the very paragon of religion rather than its destroyer, his speculations as to the origins of life make him poignantly aware of the supernaturalness of the Spirit which did start everything, his realization of the interdependence of mankind shows him the need for a religion to govern the conduct of all men; and his own devotion to his work requires the highest kind of religious self-sacrifice.

This same student writes in lighter vein of the influence of his study of science on his own thinking.

*Terra Firma?*

The earth is like a pea beside the Sun:  
The Sun's vast mass to other stars' is slight.  
A fault! Now I have science on the run.  
Why are they not proportionately bright?

The scientists with evil glee reply,  
"From Earth to Sun is ninety million miles;  
Five trillion for a star is very high  
As shown by clever geometric wiles.

"Since parallax is point '0' ninety-six  
And base one eighty million over two  
Then  $x$  times ossing of the parallax  
Equals the base. To solve this divide through.

"The brightness as you certainly should know  
Varies inversely as the distance squared.  
Hence though they're great their magnitudes are low,  
The reason for their dimness now is bared."

Then as I reeled before this stunning blow,  
To think the Earth was nothing but a pea,  
A dread idea in my head did grow,  
If that is true then what does it make me?

I battled then with all my wit and skill,  
I brought each slight discrepancy to light,  
But every time they claimed things worser still,  
Oh, cursed spite, their science proved them right!

The Earth is *not* the center point of all,  
It whirls around the sun at breakneck speed!  
The stars *aren't* lamps on a celestial ball,  
They move about, and rapidly indeed!

Oh, give me once again those blessed days  
When all the stars were small and would stay put,  
When sun and stars and moon went on their ways,  
But Earth was still and solid underfoot!

Book reviews offer excellent opportunities to students to reveal their appreciation of "things not seen."

*Winterset*

Perhaps years from now people will read Anderson's *Winterset* to find out what we were like as we look back now to Shakespeare to find out what motives ruled men in the past. They in their ideal civilization will look back on our poverty, our gangsters, and our injustice with pity for the folk who foundered in such impotence. . . . Trock will be a typical example of the gangsters whom they will have learned to treat as sick men needing medical care. . . . Perhaps there will be no more Trocks, they would gain nothing by robbing and killing. Esdras and his children, Lucia, the street-piano man, the hobo, and Mio himself will be examples of the last stage of a social system in which men were suffered to live or die, depending on whether or not some kind soul gave them enough to eat and a place to sleep. . . . But these things alone will not make *Winterset* remembered. There will be something more. If future generations see only the injustices of *Winterset*, they will think of us as thoroughly wicked people; but they will come nearer to real understanding of us if they realize that Mio and Mirianne do triumph over their unfortunate surroundings and do arrive at forgiveness of the people who killed them. They will know that our generation was not entirely evil, if we could produce such spirits.

Again and again youth reveals its responsiveness to beauty and its idealism:

To me poetry is more like music than anything else; poetry is, if anything, more concrete. . . . One might even compare musicians with poets. For instance we can see the likeness of Wagner to Byron, Debussy to Wordsworth, Chaminade to Keats or Shelley, Elgar to Kipling, Stravinsky to Vachel Lindsay, Mozart, Brahms, and Beethoven to Milton or Shakespeare, Tschaikowsky to Tennyson. Wagner and Byron are romantic, Chaminade and Keats imaginative, Lindsay and Stravinsky descriptive; Beethoven and Milton reach heights of grandeur, Tschaikowsky and Tennyson have depth of feeling and solemnity.

Just as "true music" is music of unmarred beauty, so "true poetry" is something almost ideal, which is at the same time great poetry and *our own* poetry. We must be able to understand a poem's form and

philosophy objectively, but it will mean nothing to us personally if we cannot respond emotionally as well, through having experienced, lived, enough to understand at least some of its significance. One of the wonderful things about growing up is the way one's understanding of life unfolds every minute that one is truly alive, and the way poetry and prose spring into focus with life. . . . We demand of true poetry that it hold some beauty in the simplicity of a few lines or in the grandeur of an epic. It should be to our humdrum existence mountain air in which ordinary emotion is transmuted into something higher and nobler—anger and hatred into pity and understanding, and our feeling for mankind into sympathy and love.

## CHELTENHAM HIGH SCHOOL

ELKINS PARK, PENNSYLVANIA



Cheltenham High School is located at Elkins Park in Cheltenham Township, which lies along the northern border of Philadelphia, about six miles long and one and one-half miles wide. The population has grown from 6,000 in 1900 to 19,000 in 1940.

The history of this region goes back 250 years to a Quaker background. Up to 50 years ago it was a district of farmland and small villages. It then became the home of rising American merchant princes, utility magnates, and financiers who erected large homes on ample estates. One Italian village grew up around a quarry which supplied work for recent immigrants. On the site of a Civil War camp for Negro soldiers, and near the home of Lucretia Mott, a fine Negro community grew up. About three decades ago a suburban development began which has continued to the present time. This brought to the community its now typical citizen—the commuter.

The population background of the school represents a wide diversity of economic conditions, heavily weighted toward the upper middle class but with every economic level contributing a certain number. In citizenship nearly every foreign land is represented, but the first generation of the foreign-born are not numerous. There is a wide diversity in religious background. In 1940 there were 1,475 pupils in the eight elementary schools, 806 in the two junior high schools, and 860 in the senior high school.

For more than 20 years a genuine effort has been made to differentiate the work which has been offered to students. The school schedule was always made after and not before students under parental and teacher guidance had selected their fields of study. Efforts were made to find material that would be helpful for each student and within his power to master. We have always believed that each pupil of school age was the responsibility of the school whether he was enrolled or not.

When the Pennsylvania Study was projected in 1928, a forward-looking superintendent joined the enterprise. This was mainly a study of pupil development, following the course of one class from the seventh grade through to college graduation.

In 1931 the inquiry group reached the tenth grade in the senior high school. Inasmuch as senior high schools had made least change in their programs, it seemed worth while to attempt some revision. Cheltenham High School decided to select a group of students who seemed from their ability and previous records to be probable college material. One section of about 30 pupils was selected.

The underlying purpose was to secure greater continuity in the educational program of each student than the piecemeal and fragmentary 16 units of ill-assorted electives so prevalent in American secondary education. In nearly every case each subject field was studied three years with the same teacher. Within each subject field, therefore, the teacher was free to re-organize and enrich subject matter as seemed best. This continuity was carried on in the school organization as well. Each home room had members from each grade who remained in the home room as long as they remained in the school.

An effort was made to emphasize science and social studies with some emphasis upon art and music. It was hoped that much less attention would need to be paid to foreign languages, possibly limiting this to one language. Traditional practices were, however, too strong to attain this end. Pupils carried five or six subjects, giving relatively less time to each field. Our experience proved that the idea of units of standard scope was still imbedded in general educational procedure, so that, while achievement was good, the strain on the pupil was too great. After several years the number of subjects carried was reduced. The continuity of teacher-pupil relation has been continued as a successful procedure.

Out of all proportion to the number of pupils involved, the College Entrance Board Examinations influenced the content and organization of the curriculum. Through the influence of the Carnegie Foundation colleges were persuaded to allow us to present other types of information as evidence of fitness to

pursue college work successfully. The cooperative tests of the Educational Records Bureau were administered annually and sometimes more frequently, and these results with psychological and aptitude tests were carefully recorded on the American Council Cumulative Record Card. Much additional personal information was also carefully recorded and submitted. These records were photostated for a year or two; later they were summarized for the colleges, as instruments of summarization were developed, notably those of the evaluation groups.

Our more thoughtful teachers were dissatisfied with the traditional method of recording pupil progress. It was recognized that percentage and letter grades gave a false impression of objectivity and exactness which was misleading. By unanimous agreement it was decided to use only two marks to record teacher impressions of achievement: S for satisfactory, U for unsatisfactory. The basis for differentiation was the teacher's opinion as to ability to do satisfactory college work. Sometime later a mark of A was added to denote distinguished work.

The Carnegie Foundation has published a description of the Pennsylvania Study so that no more need be said here except for a few comments. The Pennsylvania Study was a study of school and college relations, but we always hoped that such experimentation as might be done would influence the life of the whole school. In many ways this is what happened. So far as possible continuity of organization was developed in the entire school. Then, too, the teachers of this special group also taught groups not specifically in the experiment. Many procedures were consciously or unconsciously carried over into these other groups. We were loath to abandon the gains we had made after the one class had passed through the school. With the consent of the parents of the pupils involved, colleges were persuaded to allow us to continue our work with the next grade. Then the school entered the Eight-Year Study.

### *Development of the Program*

A previous experience at going ahead too quickly had warned us that a school must not go too fast to hold the support of its constituency. Whatever changes were made were developed

slowly so that pupils and parents might not feel too insecure.

With this background of experience the invitation of the Commission on the Relation of School and College to join the Eight-Year Study was accepted. One of the first matters to be attended to was the formulation of a philosophy or a set of objectives for the program. This was not developed at once. In fact, several years' thought was given to this problem and then the result was called tentative. The faculty had nearly as much difficulty in crystallizing its views as did the members of the Briarcliff Conference.

In June, 1935, the following statement of objectives was agreed upon:

1. To help an individual to understand his own physical and mental health and to attain satisfaction in each on his own level.
2. To help an individual to develop the attitudes essential to living in the environment in which he finds himself, and to participate in the improvement of that environment.
3. To help an individual to achieve an awareness of opportunities for richness in living.
4. To help an individual acquire the necessary habits and skills for effective learning.

Each of these objectives had a number of subheads. In attempting to reach those objectives no radical change in the direction of "horizontal integration" was attempted. Continuity of program was secured by assigning students to the same teacher in each field during the entire senior high school course. At first sight it may seem that such an arrangement would have little effect upon procedures, but when an opportunity is given for teachers to approach their problems on the basis of the total school experience of the pupil, many teachers recast the whole program in terms of long-range objectives.

The selection of students for these groups at the beginning of the tenth grade has been carefully done. Close contact is kept with the two junior high schools from which our students come. Careful records of ability, achievement, and general personality development are made in the junior schools. At the end of the ninth grade certain cooperative tests are administered to secure



some objective evidence of achievement. These are studied by the principals in conference and are the basis for advice that is given for selection of work in the senior high school.

Much assistance is provided to parents and pupils in making decisions. When difficulties are encountered, the senior high school principal joins the junior school principal in conference with parents and pupils. The pupils in this group, as noted before, are at least tentative candidates for admission to college. In the main, they group themselves into those with literary or artistic inclinations and those with scientific or engineering interests. There are, however, no fixed patterns except that English and social studies for three years and a minimum of one science are required of all. Two years of senior high school mathematics are usually chosen, although in some cases no mathematics is selected. In most cases one foreign language is selected and in many cases two foreign languages. Courses in art, music, and commercial subjects may be elected as the aims of the individual pupil dictate. One pupil who was much interested in ballet dancing and planned a career in that field was granted credit for this work under the instruction of a nationally known teacher.

Opportunities are given for adjusting the choice made at the beginning of the senior high school course as the changing and developing purposes of pupils become known to themselves and the school.

With these observations in mind many pupils follow this pattern: English, four years; social studies, three and one-half years; a foreign language, three or four years; a second language, two or three years; mathematics, three years; science, one and one-half years. There is a tendency to carry five subjects.

Another group interested in science or engineering follows this pattern: English, four years; social studies, three and one-half years; mathematics, four years; science, three and one-half years; a foreign language, from two to four years. In this tabulation the work of the ninth grade is included to show the sequence.

In addition to the classroom experiences of these pupils, which were mainly in segregated classes, a wide program of activities

is open to all students in the school. In these activities the pupils of the Eight-Year Study group participated very freely.

An important agency in the school is the Student Council. This body, members of which are chosen from each home room, is elected freely by the students. Occasionally mistakes are made, but the judgment of the student body is surprisingly good. Teacher advice is given, but a large measure of freedom of choice is granted to students. In this activity the students of the Eight-Year Study group are represented entirely out of proportion to their number in the school.

A varied club program affording opportunity for special interests is offered for all students. Practically every student in these groups participates widely in these activities. A fine school orchestra, a school band, and glee clubs give musical experience to many students. Dramatic clubs and class plays help to widen student horizons. One of the finest school traditions is an annual Gilbert and Sullivan operetta. Most of the operettas have been presented within the last ten years. In these productions the whole performance, including principals, choruses, and orchestra, as well as the stagecraft, is carried out by the students.

For the school as a whole physical education is provided twice a week with informal health education discussions by the instructors. A wide program of sports in well-equipped gymnasiums and playing fields is extensively used. For the girls particularly but to a considerable degree for boys as well, a program of corrective work is carried out. A fortunate cooperation with pediatricians and several local hospitals has made such a program very fruitful. A varied program of intramural and extramural sports is also carried on. For girls, hockey, basketball, tennis, and golf are provided, together with certain minor sports. For boys, there is football, basketball, baseball, wrestling, golf, tennis, and track. Our aim is to have large squads, and in a number of interscholastic sports we provide not only one team but a number of teams. Thus there are three interscholastic football teams and four interscholastic hockey teams.

### Scope of Activities

*A Regional Study of American Literature and Culture.* In order to show American letters coming from American life, to examine the American tradition and character, and to make this study as fresh and free from classroom mustiness as possible, the regional approach has been used in eleventh-grade English classes for the past six years. The unsuspected complexity of "The American Tradition" and "The American Character" seems to make the regional study an illuminating experience for the adolescent who has lived most of his life within the confines of one community and the nineteen thirties.

The student's role is to select a region, to study all available materials that will extend his experience in that particular culture, to understand the character of that region, and to fit that total impression into the whole picture of American life. To feel the pulse of the region studied and to evaluate its force upon and contribution to American life and letters is his objective in this study. His conclusions are discussed with all students in the group.

Obvious difficulties arise in setting up this study. First, the determination of the boundaries of the various regions presents confusion, especially in the cases of the Middle West, Northwest, Prairie States, and Far West. Again, confusion enters in attempting to differentiate the South of Virginia and Kentucky from the Deep South, and the distinctive character of places like Florida and New Orleans from the South in general. The boundaries are here made very general in some cases and very specific in others. An overlapping of regions is bound to result, and teacher guidance enters the picture at this stage.

There are repeated conferences with the teacher and class discussions of problems of interest to the whole group. After reading, observation, discussion, and conferences, a report on the letters and culture of the region selected is written. Obviously, this task involves many scholarly processes. Responsibility for an extensive project, organization of many materials, use of library and museum materials, and effective presentation of the subject to the group are real problems for a maturing stu-

dent. The result is definitely superior, in our experience, to the usual chronological survey of American literature.

*The Personal Journal.* The composition work of the new tenth-year students is developed in a personal journal which offers the teacher a splendid opportunity to become well acquainted with the needs and interests of the individual pupil.

A preliminary study of the journals of such writers as Louisa Alcott and Emerson serve to suggest a pattern which, however much it may be an imitation at first, becomes ultimately a reflection of the pupil's own development of style. In this journal the student builds a colorful vocabulary, practices varied and more effective phrasing, and fits the general style to the subject, until daily practice gives him control of his techniques of expression.

This technical facility in writing is not, however, the only benefit derived from this activity. One of the most important by-products is an evident emotional growth. The journal affords a release to suppressed spirits and students "write off" their emotional chaos. In this manner the English teacher assists the student in making adjustments to his new environment.

*Social Studies.* In our social studies classes we are attempting to present an orderly picture of modern society in terms of its origins and present problems. Our course of study provides for a unified study of world history in grades X and XI and for an analysis of social and economic problems in grade XII.

A student entering grade X studies ancient and medieval history with emphasis upon living in groups; social, political, and economic problems get most attention. He studies the church and its social implications and sees how society, through evolution or revolt, achieves its current ideal of progress. The teacher uses current happenings as starting points for the investigation of timeless patterns of development.

The senior year is more specifically given over to present-day problems. Our classes, when studying housing, visit Philadelphia slums and housing projects. Individual students have conferences with workers in fields studied. We use the films of the Human Relations Commission, and follow them up with discussion of the problems they reveal. The periodical files and

pamphlets of the school library are particularly useful with these students.

Through library work, visits, conferences, motion pictures, discussion, and reading our department tries to turn out students capable of independent thought based on careful study and ready to do a good job in college or in industry.

*Science.* The science course in the high school in its broadest sense is designed to interpret the environment to the pupil. In the tenth year he becomes familiar with his biological environment, in the eleventh year with the forces acting upon that environment, and in the twelfth year with the composition of the environment.

These topics are not considered as purely intellectual pursuits, but in their relation to man—how man is changed by them, and how man controls and develops them. During the study in the eleventh year, references are made to effects produced by physical forces on the biological environment and comparisons drawn between what has been studied in biology in relation to physics. In chemistry, references are constantly being made to how the previous study of physics and biology is related to chemistry. In the laboratories, skills and techniques are developed peculiar to each phase of science. In biology, training is given in the use of the microscope, in dissection, in observation, and in drawing what was observed. In physics, the student learns the use of physical instruments of measurement, the derivation and verification of physical laws; and in chemistry he studies the production of compounds and elements, and develops his powers of observation of their properties.

Further work in bacteriology and in qualitative analysis can be obtained by those interested in the science clubs. The use of the library, which has a better than average collection of books, accompanies all studies. Thus the student broadens his knowledge through assigned references and develops ability in research through assigned topics. The needs of those who wish to use these specialized sciences as prerequisites for college study are not neglected; neither are they emphasized above the needs of those who do not expect to use science as a tool subject or as a basis for a career.

The unit plan of instruction is followed almost exclusively. Field trips are limited, due to the administrative difficulties in a large school. The lack of these field trips is offset by a liberal use of visual aids. No special classroom technique is followed throughout, but a wide variety of projects, demonstrations, socialized recitations, individualized instruction, and project methods are used. These methods are varied in the light of the needs of the pupil.

*Mathematics.* Not a great deal of change has been made in the mathematics program for the Eight-Year Study group. A number of students who have had little interest in mathematics have been directed toward other fields. Quite a large percentage of these students, however, have felt that mathematics was necessary in their future program. This was particularly true of those boys and girls who were interested in science or in engineering. For them a program of four years of mathematics is provided. In the last year or two one member of the department visited the University of Chicago Workshop working specifically on mathematics problems. This has brought some change in the use of mathematics in reflective thinking. Some slight progress has been made but more could be desired.

*Art and Music.* In a sense, art and music in the school have been considered as an avocational rather than as an essential part of the program. Many opportunities in both fields are offered in classes and particularly in activities that are not strictly within the formal curriculum. While there is not a great deal of work in drawing and painting, there is a strong program in modeling, ceramics, and the crafts. The art room is filled all day with students for whom this activity has a great deal of meaning. Facilities for this will have to be expanded. In the field of music, opportunities for vocal and instrumental work have grown rapidly, and students in the Eight-Year Study group have participated freely.

*Latin.* The principal innovation in the Latin program during the Eight-Year Study has been the substitution, in the third year, of a unit of medieval Latin selections that deal with problems of private life, education, early scientific experiments, and life in the monasteries. By selecting passages from writers like Erasmus,

who were followers of the classical style, one encounters a minimum of language difficulties. The remainder of the year is devoted to selections from Cicero's letters, excerpts from his essays, paralleled with English and French essays being read at the same time, portions of the Catilinarians, and only one complete oration—Cicero's famous defense of a liberal education, the *Pro Archia*. Thus we detour around one of the chief obstacles in the pursuit of a classical education.

Vergil's *Aeneid* has been approached from almost as many points of view as there have been annual classes. One or two years we traveled the Aegean and Mediterranean seas with their problems, ancient and modern, from the point of view of the geographer. Another group, with a more literary turn of mind, were interested in the epic; and since they were taking other languages, they read for comparison some of the great epics in French, German, and Spanish. One girl even went to a great deal of trouble to get a certain privately-published Spanish edition of the *Aeneid*.

One group, three of whom are now music majors in college, gave Sunday afternoon concerts, using selections that had classical, mythological backgrounds. Others of the group made several trips to the art museum with a similar purpose, and all collaborated in leaving a card catalogue of material available in music and art.

The most recent contribution to reading with a purpose in a foreign language has been a study of the philosophy of Sholom Asch's *The Nazarene* in conjunction with Vergil's *Aeneid*, Book VI, and a study of methods of propaganda, ancient and modern.

*French.* Several years ago there was no extensive reading in French; and what there was was stereotyped, the choice of the student being limited to two or three books. Now with the acquisition of a French classical library with authors of various periods and genres, the student has available the works of over 50 writers and can read according to his interests and needs. Montaigne's essays, difficult as they are, always are read during the year, and are sometimes used for correlation with Latin. Corneille, Molière, and Mme. de Sévigné appeal to students of mature mind who would be bored by the elementary readers. One of the pupils wanted to read *Candide*, by Voltaire, which

she had found in the library of her home. This book would not ordinarily be recommended by a teacher, but in this case the pupil was not harmed by the experience. Science books are popular with boys and are read quickly. French poems are enjoyed by the girls who write poetry. The teacher continually tries to discover these individual differences and to make the most of them. For instance, a first-year student who is doing poor work has an interest in Napoleon. He has already been given a book in English on Napoleon; soon he will be encouraged to read Napoleon's speeches in the original and Napoleon's life in French.

*The Library.* For more than 15 years a generous Board of Education has thought of the library as a very important part of the total school program. The library is used jointly by the senior high school and by one of the junior high schools: approximately 1,800 students. It contains more than 7,000 volumes, kept up-to-date by frequent purchases and by weeding out books which have outlived their usefulness. Many magazines are used, and material is clipped and placed in vertical files that hold much visual and pamphlet material. Two trained librarians are employed, one of whom teaches eight periods per week. Library techniques are taught by English and social studies teachers and by the librarian. As the textbook recedes into the background, the library is used more and more by individuals and groups. Frequently a teacher transfers a whole class to the library, where its full resources may be used more freely.

### Cooperative Test Results

The Eight-Year Study group which graduated in 1940 had a median I.Q. of 121, and its median score on the American Council Psychological Test was exceeded by only 26 per cent of freshmen in college. On the tests which were given, median percentiles based upon public school norms were as follows:

|              |    |                     |    |
|--------------|----|---------------------|----|
| English      | 79 | Solid Geometry      | 86 |
| Literary     |    | General Achievement |    |
| Acquaintance | 73 | in Social Studies   | 92 |
| Chemistry    | 92 | Latin               | 82 |
| Trigonometry | 85 | French              | 86 |



### *Student Records*

For a decade Cheltenham High School has been carefully collecting material about each student in cumulative records. Before the student comes into the high school a folder is submitted containing all information which the elementary and junior high schools have collected: grades, results of aptitude and achievement tests, and teacher observations of the student's personality.

The cumulative record card in the senior high school records among other things the following information:

1. Results of aptitude tests. Each student has on his record the results of at least two forms of the Terman Group Test and the results of the American Council Psychological Test for college students. These are administered in the eleventh grade and the percentile among college freshmen is indicated.
2. Marks in courses as expressed by the letters S, U, and A.
3. Cooperative test scores and percentiles as of the end of each year. In many cases these tests are administered in spite of the fact that the subject matter does not follow the general pattern. Note is taken of points where there is such divergence.
4. Personnel information concerning the student, his home, his interests, his activities within and without the school.
5. A written statement of the counselor's annual interview.
6. Records of special interviews of counselor, teachers, and principal concerning any point of difficulty which may have arisen or any significant happening which may be of help in understanding the student. In difficult cases these notes of interviews may run to a dozen or more per student.
7. A summarization of teacher estimates of important character traits as recorded on description cards.
8. Records of special tests devised by the Evaluation Staff.
9. Teacher estimates of probable success in the particular college to which the student is applying for admission. Although these estimates have obvious limitations, they help the principal to come to a decision as to his recommendation for admission to college.

10. The approximate rank of student in class.

When records are sent to colleges all this material is considered. The principal has no hesitation in submitting all of it which seems to be significant in determining whether a student should be admitted to college. Much of it is also submitted in the hope that it may be useful to the colleges in helping to plan the program of each student.

*Reporting to Parents*

An honest effort has been made to keep parents closely in touch with the work of students. In every way possible they are encouraged to come to the school for conferences with teachers and administrative officers. In addition to this the following means are used to keep parents informed of what is happening and to solicit their cooperation in the study of mutual problems:

1. The formal report card is issued each six weeks.

2. Once a year each teacher writes a description of the work of the student in his field. Every effort is made to prevent formalizing these reports. For this reason no check list is used; teachers use different terms to describe each student. In order to prevent overloading teachers, reports of the twelfth grade are sent out in December, the eleventh grade in March, and the tenth grade in April. For these reports the descriptive report takes the place of the formal report card. Each parent is requested to comment upon the report when received. The response to this has been highly gratifying.

3. The cooperative tests are used extensively to help to predict success in college. To most parents the terms used are not understood. It has, therefore, seemed wise to send to each parent during the summer vacation a statement of the cooperative test scores in each subject field and of the percentile rank based upon public school norms. When there are limitations in the significance of these tests for particular fields of study we try to indicate these limitations in the letter which accompanies them. Parents are then invited to come to the principal's office during the summer for a brief interview. In spite of the fact that many of them are on vacation, a surprisingly large number of parents come to the school in order to have more leisure for

discussion of pupil problems than seems possible while school is in session. This has been a most fruitful means of parent contact.

4. Personal letters are sent to parents whenever the occasion seems to call for them. This is particularly necessary when the problem of choice of college comes up. Students and parents are urged to make a tentative choice as early as possible in the student's high school course and then interview one of the school officers to find whether such a choice is possible. One of the difficulties which a high school principal has is that of keeping ambitions of parents within the range of reality. At Cheltenham we have learned that parents and students will accept reality if only they have time enough to face real facts. All the kinds of evidence which have been indicated thus far are shown to parents in a frank way, and then plans for college are made with the cooperation of student, parent, and school. Scarcely any college application is sent out without such a conference. The result has been that out of 74 who went to college last year 71 completed the work of the freshman year.

5. Mention has been made at various points of parent interviews. These ought to be emphasized. Parents are urged to think of an interview with teachers or school officials not only as an opportunity but also as a duty. The result has been that a great many parents of their own will come for assistance not only in problems directly pertaining to the school but in many cases in problems that pertain to the general life and development of the child outside of school. The school can sometimes offer valuable aid at these points.

### *Vocational Guidance*

Vocational guidance is considered a part of the guidance program but by no means the whole of that program. One thing that has been done in this connection, although not unique, has been developed quite extensively at Cheltenham High School. This is the use of outside consultants to help boys and girls acquire vocational information. This program, of course, applies to the whole school and not to the Eight-Year Study group alone. Close contact has been maintained with employers in this

community and in the larger Philadelphia community. Visits are made to plants, and employers are contacted in an effort to find where jobs may be had. Once each year a group of approximately 20 representatives of various vocations which boys and girls might enter immediately on leaving high school come to Cheltenham High School for what is called Vocational Day. They meet small groups of students who have indicated an interest in that occupation. For an hour they sit with their groups making suggestions and answering questions concerning abilities, training, requirements, conditions of working, and opportunities for advancement. On one other day in the year, representatives of occupations that require training beyond the high school come to Cheltenham for similar conferences. This day is called All-College Day. The consultants are selected, however, as representatives not of colleges but of occupations or professions. These conferences, which have now been held for six or seven years, have proved helpful both to boys and girls and to the school, because of the understanding of school problems developed by leaders in the community.

### *The Expansion of the Program*

The Pennsylvania Study involved 30 students out of a class of approximately 200. In the fall of 1936 two groups of 30 students each were selected. In the fall of 1940 all students who were clearly capable of preparing for college were placed in these groups. This was a total of approximately 120 students in a class of somewhat more than 300. In the summer of 1940 six members of the faculty attended the University of Chicago Workshop to develop material for the nonacademic student. Interestingly enough, these materials are now being used with students who are preparing to go to college. Thus we come more and more closely to a real general education program.

## THE DALTON SCHOOLS

NEW YORK CITY



The Dalton Schools live in a 14-story building at 108 East 89th Street, New York City, two blocks east of the Metropolitan Museum. It is the home of the Dalton Plan which Miss Parkhurst, the director, first developed in Dalton, Massachusetts. It takes children from nursery to college, and is coeducational through the eighth grade. There are now about 50 girls in each grade in high school. Tuition is \$700 a year, with a considerable number of scholarships covering part of this amount.

The high school has no fixed schedule. Each morning the bulletin board tells which classes are to meet that day. Few classes meet more than twice a week, and sometimes they meet even less frequently. Students feel that more than two classes a day leave too little time for work. This work is mapped out in Study Guides which are prepared cooperatively in each class about once a month. Teachers initial students' records as they finish each part of these Study Guides. Advisers check these records periodically, and if the work is proceeding satisfactorily no questions are asked about the use of time in school. Most of it is spent in classrooms where no classes are meeting, working on Study Guides with the help of the teachers concerned.

Each adviser must keep in touch with the development and problems of 15 to 20 girls, drawn from all four grades, and this group is called a House. Houses meet each morning and provide an informal setting for the discussion of personal problems and some of the school problems which are under consideration by the School Government. No marks are given at Dalton, but four times a year each girl and one of her parents have a half-hour conference with her adviser and one of the school heads to read and discuss progress reports from each teacher. During the spring a great deal of time is spent in planning an appropriate program for each girl during the following year. After

courses are tentatively selected, students and teachers hold a series of meetings in which the general scope of each course is planned. A series of conferences the week before school opens in the fall provides an opportunity to discuss any changes which seem desirable at this time, and to do some of this planning with new students.

Students list plays, trips, and the School Government as outstanding experiences. Each grade selects a play as a regular part of its work and studies it intensively for six weeks. Then each girl is given some part in the production; other work is shortened to permit three hours of rehearsal daily for two weeks, and the play is presented. No admission is charged, for this work is too intense to risk the taint of exploitation. Each class play is scheduled at a different time of year to enable the dramatics teacher to concentrate on one at a time. Girls especially interested in theatre arts may take part in other plays as an "afternoon activity." The time between three and four-thirty each afternoon is reserved for such activities.

The free schedule of the Dalton School permits an unusual number of trips by individuals, small groups, and classes, not only to see many significant aspects of the life of the city, and to interview many of its leaders, but also to visit such distant points as Boston and Washington.

The School Government is justly famous for its sincerity and reality. All students and the staff meet together on equal terms an hour each week, and decide all major questions of school policy together. Students testify that staff opinion is modified by these discussions as frequently as their own, so that all feel they have a voice in matters of real importance, such as changes in the curriculum, time allotments, rules concerning electives, and the like.

For the most part, these features of the Dalton Plan developed before the Eight-Year Study began. Up to the beginning of the Eight-Year Study the school, bound by college entrance requirements, could change only the *method* of studying the usual 16 Carnegie units. The Study permitted and encouraged the development of new courses, more responsive to the needs and interests of adolescent girls. Only the story of this develop-

ment can be told in the following excerpts from the report of the Dalton Schools.

### *A Day in School*

Ann Martin, a junior, arrives at school between 8:30 and 8:40 in the morning, and goes immediately to the cloakroom in the basement, where she leaves her wraps, and puts on her school smock. She goes up to the fourth floor and looks at the schedules for the day, which are posted on the bulletin board. From this she learns what conferences of her class, for presentation of new materials, are to be held during the day, and what hours she will be free. She knows that she will have from two to three hours of free time, and the schedule tells her just when this time will come.

She then gets her books and notebook from her small locker on the third floor, and by 8:45 is in the room where her House Meeting will be held. If she reaches her House a bit early, she will have time to chat with other House members, who are girls from all four classes; or she may talk with her adviser about a project she is working on, or about the new dress she is going to wear at a dance on Friday night.

House Meeting begins with the taking of attendance. The adviser then asks whether any of the students are having difficulty in getting materials they need for their work, or in getting help from any of their teachers. If such difficulties have arisen, she may ask individuals to see her later in the day for further discussion of the problem. Some of the freshmen who are new in Dalton School have been having difficulty in planning how to use their free time, and the older students ask them questions and make suggestions for working which they have found useful. The adviser takes part in this discussion as one member of the group. At the end of the meeting the group agrees to spend the next House Meeting in planning a program to present at a Friday Assembly the following week.

Ann had learned from the schedule that she had the first two hours of the morning free. At nine she goes to the library and opens her set of Study Guides to the social studies section. She has already worked through about half of the six weeks of

study and activity outlined in these guide sheets, and is ready to begin work on an individual project. She has already had a conference with the social studies teacher and has decided that she will write a short biography of Luther, in connection with the study of the Protestant Reformation.

Ann spends some time in the library outlining the kinds of materials she wishes to collect, and then, with the help of the librarian, finds out which of the materials she needs can be found in the school library. She then goes up to the "laboratory" where her social studies teacher spends the day, and finds that the teacher is free. Together they discuss what other materials Ann will need to look for outside the school, and the teacher suggests that perhaps Ann would like to attend a Lutheran church service the following Sunday. After this conference is over, Ann goes to the English laboratory, hoping to talk with the teacher there about her topic on Luther. But she finds the teacher busy with a small group of seniors, and she decides that she had better see Miss S. at recess, to arrange an appointment with her. She feels that she has made a good beginning on her topic, and decides to spend the half-hour before the morning intermission reading some French. She looks into the French laboratory, sees only a few students there, and decides she will work there, so that she can ask the French teacher's help in case she should need it. She finds three of her classmates working there, and at about 10:45 they gather around the teacher and enter into a lively discussion as to whether the behavior of the eighteen-year-old girl in the French novel they are reading is what one would find in a Dalton girl of that age. At 11:00 a gong sounds through the hall, announcing the beginning of intermission. Teacher and students walk down to the first-floor room, known as the East Hall, continuing their discussion as they go. Here they find most of the students and teachers of the high school buying refreshments, either from the small soda fountain or from the table of cookies, fruit, and milk. Ann finds her English teacher and makes an appointment for an individual conference with her the following morning, and then talks with friends till the end of the intermission period at 11:15.

For the next hour she meets with all the juniors in a social



studies conference, where they discuss what they have read in a variety of sources about the causes of the Reformation. The teacher adds points on the topic, and the conference continues with discussion of the ways in which the lives of those who became Lutherans were changed by their withdrawal from the Catholic Church. Some of the students wonder whether the lives of Catholics and Lutherans are very different from one another today, and Ann says she hopes that she can later help to answer that question. The class then discovers that one of the group is a Lutheran, and she offers to take Ann to church with her and arrange a conference between Ann and the Lutheran pastor.

At 12:15 Ann goes to a French conference, where she meets with the 15 girls who are at about her own level of advancement in the study of French. The teacher is asked to explain certain difficult constructions in the novel they are reading, and this entails a review of certain principles in grammar. The last 15 minutes are spent in a discussion of the people in the novel, and the teacher contributes some facts about life in France at the period in which the book was written.

At 1:00 the girls take the elevator to the gymnasium on the tenth floor, where their lunch is served. Ann glances into the senior lunchroom, where the senior girls are gathering, and thinks how exciting it will be next year when she is a senior—and yet it will be a rather serious matter to be a senior, when all the girls in the lower classes think one should be able to do so many things well, and one has to think and plan for what one will do after Dalton is over!

By 1:30 Ann and her friends have finished lunch, and they go down to the fourth-floor corridor, where they dance for 15 minutes, before committee meetings begin. (Had it been a different day of the week, Ann would probably have spent the half-hour from 1:30 to 2:00 in the music studio, listening to records which the Music Committee had arranged to present.) Ann is a member of the Committee on the Intellectual Life, and her group spend the half-hour sorting clippings for their section of the bulletin board and discussing whether it will be wise to try to arrange for an interested group of girls to go to an evening forum at the Town Hall. They finally agree to talk with the teacher of senior

science, to learn whether he would be willing to go to the forum with such a group.

From 2:15 to 3:00 Ann has a free period and, since she feels a bit tired after the heated discussion of the committee meeting, she decides to "take it easy" and spend the time reading a play which she is going to report on in English class. As she reads she makes a few notes as to the possibility of her class presenting the play as their yearly class play.

At 3:00 Ann puts her books and supplies away in her locker, and spends a few minutes "relaxing." At 3:15 she leaves her friends, who scatter to gymnasium, art studies, or theatre. Ann goes to glee club practice, where the group is preparing some songs which are part of the program the high school is giving for the whole school on Lincoln's birthday.

At 4:30 Ann and two friends collect their wraps, leave their smocks in the cloakroom, and hurry down to the corner drugstore for an orangeade. After a time the dramatics teacher comes into the drugstore for a cup of coffee, and joins the students. A long discussion of the recent play given by the seniors follows, with many pros and cons as to whether *this* junior class wants to give a play when they become seniors.

Ann reaches home at 6:00, with an hour to talk with her family and to listen to the radio before dinner. She arranges to come home for lunch on Friday, and to go shopping with her mother in the afternoon. At 8:30 she goes to her room and studies until 10. Half an hour of "puttering around" comes next, with some cookies and a glass of milk to help "make her sleepy." As she drops off to sleep, she thinks, "This has really been a *good* day!"

### *Stages in the Development of the Curriculum*

Prior to 1933, high school students had used the Dalton Plan assignments, free time, and the House organization of a cross section of students from the four grades. Subject matter had, however, been organized in traditional courses which provided the necessary 16 units for college entrance. If a suggestion were made to the staff that a certain activity might be valuable in providing for an adolescent's development, the reply was usually,

"Theoretically that might be good, but we can't do that and prepare the girls for the college entrance examinations, so of course we can't use the suggestion." Hence the staff welcomes the opportunity for experimentation provided by the inclusion of the school in the Eight-Year Study.

During the spring of 1933 the staff, guided by Miss Parkhurst, Miss Keefe, and Dr. Hullfish, did some thinking as to how they would begin work with students during the Eight-Year Study. In the fall, the whole staff spent a week together in the country before school began, in order to plan the first month's work. They began their session with a consideration of a summary of the thinking of the previous spring:

Administratively, from the side of personnel, the faculty will represent those divisions of knowledge that are now designated the Social Studies, Fine Arts and Literature, the Biological Sciences, and the Physical Sciences. Each such area will have a Head whose major responsibility it will be to see that this division of knowledge contributes most fruitfully to the on-going educative experience of each grade. All divisions of knowledge, and all teachers, will work together for the purpose of bringing to bear upon the activity of individuals knowledge that is pertinent to growth at each moment of the activity. There will be no core subjects, no courses as we now conceive them. In their stead we plan to build the work of each year around centers of orientation that promise rich educative experiences for the individuals. As individual interests arise, however, systematic study by the student in any of the fields of knowledge, in which teachers are prepared to give expert guidance, will be carried forward. Knowledge for us, then, is funded in four large divisions, ready as the need arises.

We recognize, of course, that, in order to carry on undertakings of the character we plan, students will need increasing facility at progressive stages of their growth in the use of these subjects that are commonly looked upon as tools. Where there is obvious lack on the part of particular students, individual programs, directed toward the removal of an impeding deficiency, will be arranged. . . .

What can be foreseen is that all changes will get their direction from the basic point of view of the undertaking, that the progressive liberation of intelligence in the light of social values, increasingly cherished, is the point toward which the educative process ought to be headed.

The considerations which entered into the selection of the "center of orientation" for each grade seem to have been primarily the following:

1. In learning, the student moves from the simple to the complex.
2. The student should learn to think, feel, and act in terms of social values.
3. We are educating *girls*, and a study of the activities of girls and women is essential.
4. We are concerned primarily with the life of present-day society.

The centers chosen for each grade were a horrible example of the vagueness characteristic of this stage of the Study:

*Grade IX.* The Orientation of the Students to the Life in Which They Participate—that of the Yorkville "community." "This strikes us as the natural starting point in a program that concerns itself with the development of a progressively enriched social outlook on the part of the students. . . . We hope to establish educative contacts with the social and educative forces that now surround the school in the form of occupational interests, social and welfare organizations, political groupings, and the like."

*Grade X.* The Play of Science in Giving a Greater Control in Shaping the Character of Society. "We are basically interested in having the student rise to a realization of the new responsibilities which man has, perforce, to assume as he uses the instruments of science more and more to extend knowledge and increase his control."

*Grade XI.* "It is our intent deliberately to extend the range of our students' thought by making Orientation in the World of Human Thought and Action the basis of our organization. The student at this time will be keenly aware of the character of the New York scene in which he participates. It is then our intention to extend this awareness, in order that he may get at the roots of social problems which are perennial in character and that he may place his own social setting in intelligent contrast with other settings in the world at large."

*Grade XII.* The Development of the Individual as a Social Being. "It will be our hope that the student will rise to a social

outlook consistent with present social, economic, and political conditions, and one that conserves the values of the American traditions which give character to the democratic ideals." "The purpose of this year might be rephrased as a study of the opportunities and responsibilities of being a woman in the present social order."

At the end of the week of fall planning, each of these centers was supplemented by a list of 20 or 25 questions which the staff imagined that the students might ask in connection with the major problem of the year. It was hoped that after a few conferences with the staff each girl would choose the particular "interest" she wished to pursue. It was confidently stated, in the guide for freshmen: "Certainly, after a few days of definite study of the many aspects of Yorkville life, individual interests will be the driving force that carries further study on."

A Committee on Educational Activities was appointed, whose function was to help the student find materials she needed and to put her in contact with the teachers who could be of help in her "interest." "The committee *will arrange* the activity in ways that bring about a normal relationship to the other subject areas, in order that the student's development shall not be one-sided." No remarks on how they proposed to do this were included.

Envisage, then, a group of girls and teachers, most of whom had been accustomed to the formal organization of subject matter, going to work with a "center of orientation" and a suggested list of questions. For the first two or three weeks the novelty of the situation provided incentive. Then students began to complain that "they were tired of talking so much," that they "wanted to be learning something," that they "didn't know what to do in their free time." Teachers were equally disturbed: "What are we going to do with students who haven't any interests?" "The girls are just wandering around the halls, because they don't know what to do." The teacher of French was "tired of spending all her time listening to discussions of science." Parents began to telephone the school. "You do have our confidence, but my daughter says she doesn't see what it's all about! May I come in and find out just what is happening?" Soon the administrative staff was spending half its time in conferences with parents.

At the end of five or six weeks the school had become so confused that it was obvious that some revision of plans was necessary. It was agreed that each student should spend 40 per cent of her time in "regular courses" in mathematics, foreign language, or a laboratory science. The other 60 per cent should be given to the "center of orientation," but assignments somewhat similar to those the girls were accustomed to using should be provided for this "orientation course." Although this seemed to be a "retreat," the security of students and parents was essential if the school wished to continue with any sort of experimentation.

It was agreed that for the time being an "integrated curriculum" should be built around the "centers of orientation," and that the teachers of social studies, English, science, and art should plan it together. In the following year a change was made to the term "integrating curriculum," because the staff began to think more about integration in the *life* of the student, instead of the integration of content.

The centers which were chosen for 1934-1935 were selected somewhat on the basis of interests and purposes which had been expressed by girls during the year, but staff "hunches" and hopes still played a large part in the choice. The centers selected were as follows:

*Grade IX.* Life in New York City, considered as a metropolitan environment.

*Grade X.* The Political, Economic, and Cultural Trends which have given character and differentiation to life in the United States today.

*Grade XI.* The Impact of European Culture on our life today.

*Grade XII.* Outstanding International Problems and America's relation to them.

After these areas for each year had been selected, the staff as a whole discussed which experiences in each would be most valuable for students of a given age. Thus, for the sophomores, it was decided that a comparison of the cultures of the North and South would be a good beginning, and that this might well be followed by the development of the West and a study of the growth of modern business and capitalism. In each of these areas,

the material was considered in terms of the aspects of earlier times which influence our life in America today.

When the planning had reached this point for each grade, the staff divided into groups of "integrating teachers" who were to be concerned with each grade, and cooperative assignment writing began. It should be emphasized that social studies, as a subject, did not become the "core" of the curriculum, but each subject teacher and area contributed what they could to any problem. Sometimes each of the fields involved contributed equally with the others; again, the lead might be taken by science, etc. More opportunity for individual choice of topics and projects was provided.

In using the assignments thus cooperatively planned, there was cooperative teaching whenever the instructors concerned thought it would be of value to the students. Thus the teachers of science and social studies material might meet with a class for discussion of a problem which drew material from both fields. Sometimes three teachers met with a group for consideration of some special question. But at this time there was no regular meeting of all teachers and students for planning work.

During this year, from the first of November until the middle of March, each teacher kept a "log" of each school day. This was partly in the form of a summary of work done with individuals or groups, but sometimes a log included semiverbatim accounts of student comments. At intervals these logs were typed in duplicate, and by reading them the staff was able to keep abreast of what was happening on a variety of "fronts." At the middle of March the logs were discontinued, because many of the teachers thought that they were taking time from more valuable activities, and such records have not been kept since that time. This seems unfortunate since no other method of recording we have used gives as complete a picture of what is happening in the lives of the students.

During the next three years the general content of the "integrating program" remained much the same as in 1934-1935 for the three upper classes. Emphases and points of departure varied from year to year, in relation to what was happening in the world and to prevailing interests of different groups of students.

*Grade Nine at Work in the Nursery*

The first marked change made in the "center of orientation" for a grade occurred in grade IX, and this was brought about by our increased understanding of the needs and interests of students of this age. For the first three years of the experiment, the freshmen had been studying New York City. Their English had been concerned with reading about life in the city, and with the stories and tales of various racial groups which they had visited on their trips. Science dealt with climate and weather of the city, problems relating to housing (such as lighting and heating), geological history of the New York area, scientific basis for modern transportation, etc.

Dalton Schools had, for several years, maintained a Nursery for young babies, in which the high school students learned child care. There were usually four babies under a year old in the Nursery. A trained nurse was in charge, and a pediatrician visited the Nursery every day. Students, selected from all four classes, were organized in teams of four girls, each of which spent a week at a time in the Nursery, working under the direction of the nurse and doctor. During this week a student did not attend conferences and was in the Nursery from 8:45 to 3:00, the period during which the babies were at school. In 1934-1935 most freshmen had been spending from one to four weeks in the Nursery. In the upper classes fewer students elected Nursery work, but some of them worked there as much as six weeks each year.

As part of our general program of evaluation, a questionnaire was devised to try to find out how much the students valued the Nursery experience, which parts of the work they enjoyed most, and why they thought spending so much time in the Nursery important.

A careful study of the responses to this questionnaire showed that the girls in grade IX, as a group, liked the work in the Nursery better than the older girls, that they were more ready to learn various routines which are necessary in the life of a baby, and that they had a desire to learn the reasons for various aspects of child care. Other evaluation materials showed



that our students were rather confused and inconsistent in their attitudes about family relationships. We also found that some of the material about New York City which we had been using was too mature for many of the freshman girls. At this time a small group of ninth graders had elected a course called "Nursery-Biology," and the enthusiasm with which they had approached the study of human biology, in relation to the babies in the Nursery, suggested that work in biology might be more valuable to freshmen than the kind of science they had been studying.

It was therefore decided to experiment for a year with a freshman program, built about work in the Nursery as a center. Human biology was taught in relation to the Nursery, which was placed in charge of a teacher of biology who had had experience in babies' hospitals. Each freshman spent a week in each semester in the nursery, as a "worker," and was free to use the babies as an "observation laboratory" at any time. The work with the social studies teacher was still focused on trips about the city, but more emphasis was placed on the city as an environment in which individuals developed and lived many different kinds of lives.

The experimental year proved this program so successful that it has been continued. Our judgment of success was based primarily on our observation of the enthusiasm of the girls, of the intensive work they did, and of the way in which certain girls who had entered the high school feeling insecure and "useless" began to develop greater poise and self-respect. We also gave the Nursery Questionnaire in October, in which the girls gave a rating of how much they *expected* to enjoy various Nursery activities. In March the questionnaire was repeated, and the two records for each girl were compared. We found that the only activity the girls, on the average, liked *less* after their weeks in the Nursery was making the baby's bed.

A description of the physical setup of the Nursery and the activities which take place there are quoted from a pamphlet entitled *Mother Training for High School Girls*, which is published by the school:

A considerable space is set aside for the Nursery. There is a receiving room and study, big sleeping room or main Nursery, connect-

ing with a large, open terrace; there is also a utility room for bathing, dressing, and toileting, as well as a diet kitchen with electric stoves, frigidaire, and all the necessary modern equipment. . . .

Each morning two of the girls, accompanied by a senior assistant, call for the babies at their homes in a school bus. The other two girls, who remained in the Nursery, get into their regulation uniforms, prepare the twenty-four-hour formulas as prescribed by the doctor, and prepare for the reception of the babies. This means laying out the clean clothes and arranging the bath equipment. The school doctor sees the babies when they arrive, checks their physical condition and progress, prescribes if and when necessary, and is on constant call during the day.

Upon arrival the babies are undressed and taken to the utility room, their clothes having been folded away in individual chests. In the utility room weight and temperature are recorded and cod liver oil administered. After a bath and general inspection the babies are dressed in school clothes, fed, properly "bubbled," and put to bed after the shades have been drawn.

While the babies sleep, the students make out the individual daily health charts, graphing the weight and temperature, recording food intake, caloric value of diet, special procedures, etc. This is followed by a period of discussion and study with the biology instructor. At 12:00 the babies are given their fruit juice and sun baths. At 1:45 they have a play period, after which they are fed, dressed, and taken to the terrace for fresh air. They depart for home at 3:10 with the formulas for the night and with a general report of the day for the mothers. . . .

The freshman program included visits to New York Hospital, Borden Milk Plant, Yorkville Health Clinic, the markets in Little Italy, and in some instances to the districts where the babies have lived. There was a detailed study made of an Italian boy who was in the Nursery two years ago. The students visited him in his own home, talked at length with his parents, explored the rather typical Italian neighborhood he lived in, noting opportunities or lack of opportunities afforded by the community. They observed the baby taking a performance test at Teachers College. They went back over his Nursery health records and charted his physical growth. Thus, besides seeing Giovanni as part of a growth sequence, they became aware of the different factors which determine how an individual develops. [During the following year, these students undertook to pay the fee, so that Giovanni might attend a nursery school]. . . .

Throughout the entire freshman course in Nursery and Biology the following objectives are constantly kept in mind:

1. To give the student an understanding of how her own body functions.
2. To develop sensible health attitudes—becoming aware of false advertising; i.e., the importance of vitamins is apparent but the student realizes the improbability of obtaining *all* the vitamins in one magic pill no matter how cleverly the latter may be advertised.
3. To give training in:
  - a. Accurate observation—by charting the growth and development of the babies.
  - b. Accurate performance—when Linda's formula calls for two level tablespoons of sugar, there must be exactly two level tablespoons.
  - c. Accurate thinking—with emphasis on delayed judgment until all the evidence is considered.
4. To develop a methodical approach to tackling a problem or completing a task.
5. To build up a respect for racial and individual differences with emphasis on the wide range covered by the title of "normal."
6. To give opportunity for a girl to feel useful and necessary to someone.

The babies are usually from one to two months old when they enter the Nursery in the fall. During 1939-1940 two children who had been in the Nursery the previous year returned for another year. The group was completed by two younger babies, and the students thus had an opportunity to make useful comparisons in the behaviors, diets, etc., of children of varying ages. Margaret Hoover, the biology teacher who has been in charge of the Nursery for the past four years and whose ingenuity and thought have done much to develop the Nursery as a learning situation, believes that the best arrangement as to age is to have two babies enter at two months, and two at seven or eight months. With the older children, the students have more opportunity to adjust to the increasing activity of the babies, and to learn the psychological factors which play a part in development. For example, the girls comment in particular on the need for *patience* with the older children, and on the part imitation plays in their development. One day a girl casually put her finger in her mouth. The baby for whom she was caring imitated her, with a finger in his mouth. He was put to bed and picked up by

another girl. But the moment the first girl came near the baby, his finger went into his mouth again! As the students noted this, they became more conscious of the effect their behavior has on others, and the one girl was more careful not to put her fingers in her mouth.

The reality of the Nursery experience to many of the girls is evidenced by the fact that they go to the homes to take care of the babies, and this is done entirely on their own initiative. They take the babies to the park on Saturdays or Sundays; sometimes prepare the lunch in the babies' homes; and care for them in various ways in June, after the Nursery is closed for the summer.

The Nursery provides a natural setting for the students to learn how human beings are reproduced. This study includes a study of the structure and function of the reproductive organs, a discussion of the changes occurring at puberty, of sex taboos, embryonic development, and care of the newborn. Psychological factors in family life are observed on visits to the babies' homes, and are discussed in simple terms on return to the Nursery. Thus "sex education" need not be so labeled, or thought of as something "queer," but is a natural outcome of caring for little babies.

We have described the Nursery activities in so much detail because we have found the Nursery an ideal environment in which the learning of thirteen- and fourteen-year-old girls can take place.

### *Summary of Results of Experimentation to the Spring of 1938*

Before we describe another radical change in the program for a grade, it will be useful to summarize the results of staff and student thinking up to the spring of 1938. If this thinking and experimentation had not existed, the changes instituted in the work of the sophomore year could not have occurred.

1. The staff had done a great deal of exploration in trying to find out what were the major concerns and purposes of students in each grade. The girls' statements of what they wanted to study were very helpful, but the staff also looked for purposes

of which the students were scarcely aware, or which they did not know how to put into words.

2. This exploration, instead of causing the staff to think in terms of a "typical" freshman or sophomore, actually had the effect of focusing attention on the process of individual development. If a majority of the freshmen seem to be "little girls" one day, and the next day seem to be making a great effort to appear "grown up," what are some of the essential elements in the process of development which is going on at this time? Can we help a girl in her growth if we do not understand the purposes which motivate her behavior? If most of a student's energy is going into worry about the fact that she is very much overweight, how much energy does she have left to give to her study of French? Questions such as these deepened the staff's understanding of what needs to be provided in a "learning environment" for an individual or for a group.

3. As the staff increased its attention to the process by which an individual girl matures, somewhat less thought was given to the "integration" of subject matter. Appropriate subject matter was more often thought of in terms of how well it would serve a student, at *her* particular stage of growth. As we look back over the past seven years, we do not find a *decrease* in integration of what is learned; but this integration has become a more natural one, which more and more tends to flow from student concerns.

4. As the thinking summarized above went forward, and was discussed in many meetings of the whole staff, the "non-integrating teachers" began to say, "We think we have just as much part in fostering the development of the students as the rest of the staff. Isn't it time to do away with this division into two groups of teachers?" This suggestion was welcomed by the whole staff and, beginning in the fall of 1938, the year's program and the Study Guides were planned by all the teachers who were working with a group. At this time weekly "class teachers' meetings" were introduced, at which all teachers planned for a grade or discussed the needs of individual students.

5. The staff became increasingly conscious of the importance of a "learning environment." in which students may participate

in activities other than the *purely* intellectual. As a result, the whole staff attached more importance to the activities already available, such as trips and dramatics, and helped the students to introduce others, such as the School Government.

6. From the beginning of the experiment, provision for individual differences had been one of our objectives. But as time went on, the staff devised more ways of making such provisions. These included:

- a. Provision in the Study Guides for a considerable range of choice in reading, projects, and research topics.
- b. Provision of more varied offerings in the arts which a girl could elect.
- c. Recognition by staff and students of *many kinds* of effort and achievement, intellectual, artistic, executive, etc.
- d. Increased emphasis on the student's ability to initiate and plan many aspects of her own education.
- e. Provision of more elective courses, especially for the two older classes.

7. At the beginning of the experiment, one of the purposes stated had been that of developing in the student "a progressively enriched social outlook" (social sensitivity). The staff seemed to have a good deal of faith that *information about* social conditions would more or less automatically produce social attitudes and behavior. But this often did not happen! A student might make a very high "liberal score" on a social attitudes *test*, and yet be "grabbing" and uncooperative in living with her classmates. Teachers began to realize that learning to live with one's intimates on a "sharing" basis was a necessary preliminary to becoming "sensitive" to the broader social group. This was another factor which led us to value the development of cooperative community life within the school.

8. As students became more active in their own education, we began to question why some students were so much more creative in their work than others. By the spring of 1938 we were sure that "creativity" was an essential part of "happy and joyful living," but we had scarcely made a beginning in analyzing the *process* of creation, whether in the arts or in other areas.

9. All of the staff had been trained as teachers of "subjects."

They had moved a rather long way from seeing the "subject" as paramount to seeing the whole life of a student as important. But some teachers felt that important "subject values" were being sacrificed. In June, 1938, Mrs. Wilmotte, the Curriculum Director, asked each teacher to analyze his area of specialization under ten headings, with which the Reports and Records Committee of the Eight-Year Study was experimenting: Mastery of Vital Knowledge, Study Skills and Work Habits, Techniques, Thinking, Communication, Appreciation, Creativeness, Social Sensitivity, Adjustment, Philosophy.

Some staff members found it very difficult to think of their "subject" in such a pattern, and considerable persuasion was necessary in order to get them to attempt the analysis. After the analyses had been made, each was read and discussed at a meeting of the whole staff. This was a valuable experience, first, in making evident the many angles from which "thinking" or "communication," etc., might be approached: the staff became conscious of some of the specifics underlying a common purpose. It also gave a teacher in one area a much better sense of the possibilities of areas other than his own, and made teachers conscious of values which they had been failing to include in their work with students.

10. As students increased their activity and purpose, we found that many of them were so eager for learning and experience that they were trying to do too many things at once. Some girls were working in six or seven areas, as well as in the School Government. Although much of the work was rather closely integrated, the many facets of interest which a student was trying to follow resulted in a dispersion of effort which was not satisfying either to her or to the staff. Two related measures were taken to help meet this difficulty:

- a. Each girl was limited as to the number of major areas in which she might work during a year; in practice, this meant a limitation on the number of electives she might choose; for example, all juniors worked in social studies, English, and a laboratory science, and might elect one foreign language and an art.
- b. Students and parents were urged to think of the four-

year span of a girl's high school education, rather than in terms of a single year; for example, if no French were offered for freshmen, this did not mean that the school was omitting work in this field from a girl's whole high school experience.

These ten "results" of staff thinking all had a bearing on changes which were made in the program for grade X, beginning in the fall of 1938.

### *sophomores Explore the Arts*

Four sophomore classes had studied "The American Environment." This program had seemed reasonably satisfactory. But again, as we learned more about the characteristics common to many girls of this age, the staff began to wonder whether they could select content which would be more appropriate to the purposes of the students. When the students were consulted, many of them said that they had studied the United States in the seventh and eighth grades, and that the sophomore program was too much like the junior high school work—that they would appreciate more study of America in a later year, but not in the tenth grade.

Another factor which influenced staff thinking was the observation that a good many seniors were "afraid" to experiment in the various arts. ("I never *could* draw!" "I like to listen to music, but I don't really know much about it." "If I had started when I was a little girl, I think perhaps I could have done something in sculpture.") It seemed possible that sophomores would enjoy and benefit from an opportunity to experiment in several arts, and that each girl might find one or two of these in which she would wish to continue more advanced work in junior and senior years. Students who were already vitally concerned in one art might gain from learning something of the relationship of her chosen field to others. We also believed that the person who has tried working in an art becomes more appreciative of the work of others in that field.

Such considerations as the foregoing were responsible for the introduction of the sophomore "Arts Program" in the fall of 1938. From nine to twelve one morning a week the class worked in



one of the arts: music, painting, sculpture, or crafts. For eight weeks they had a chance to experiment with the tools of that medium. At the end of eight weeks they went to another art, so that by the end of the year they had experience in four fields. Work in the dance was carried on in regular physical education periods.

This creative work accompanied a comparative study of several earlier cultures in their most creative periods. We wanted to look at previous cultures to find what was of *lasting* value, and what people of these cultures valued. How were these values expressed and achieved? How important is *group* expression? How have human beings satisfied their basic needs through religion, government, music, painting, etc.

The social studies teacher contributes the following account of this development:

The areas we have chosen for study this year are New England unfolding into its great age, Israel of the prophets (with a brief treatment of Jewish life since that time), Periclean Greece, and Medieval Catholic Europe, with a longer or shorter study of China of the Tang dynasty. We still have a problem of selection, because of the student desire to go deeper into one or more of these, as well as the faculty realization of the claims of other cultures—of India, of ancient America, of primitive life, of the Arab and Moslem world.

A study of New England was magnificently launched in connection with a week's trip to Concord and Boston. Cherished New England values, hardly sensed before, are realized. The actual complex relationships of a culture are experienced beyond their neat, tidy arrangement in books. The total resources of our library are enlisted, and students are free to explore these books both before and after the trip.

For the study of Israel and the Jews, we used passages of the Bible; *Stranger than Fiction*, by Lewis Browne, which tells dramatically the whole story of the Jews to our own day; descriptions and map studies of Palestine itself; and some materials on the growth of ethical vision in the Bible, related to the development of the Bible. The Gospels and early Christianity are included as part of this study of the cultural achievements of the Jews.

[It is the purpose of the staff to give the students during their four high school years contact with and understanding of the Jewish, Catholic, and Protestant faiths. Some students make studies of other great religious faiths.]

This year the study of Greece proved to be the most stimulating experience, and the study of Greek drama the greatest solvent. Through lantern views and photographs from the Metropolitan Museum important works of Greek architecture, sculpture, etc., became familiar.

The study of the Catholic culture in the Middle Ages gained impressiveness and intimacy by a stay of twenty-four hours in a Catholic convent. The basic ideas of the Catholic faith, the spread of Christianity from Palestine, the nature of the medieval Catholic society, were studied. Many other aspects of the Middle Ages came in also—the effects of the Germanic invasions; the influence of Christian Byzantium; the course of the Crusades; the feudal system, based on the agricultural manor; some references to medieval science, coming through the Nestorians, Arabs, and Jews.

Many discussions on fundamental needs of man have taken place in relation to the cultures explored. Tolerance and interest in the unfamiliar in life and religion are recognized by the girls as among the important achievements. Long range initiative has been shown by many. Highly significant life interests of the serious but unaffected quality have been awakened.

The teacher of sculpture reported on how she had become a “convert” to the program of exploration in the arts:

Today, as the year draws to a close, I am pretty much of a convert to the sophomore program. I had said in the beginning of the year that girls couldn't learn sculpturing in eight easy lessons, but I am a changed woman now! After the year gets going, the girls rotate around the different rooms to see what the others are doing in the art they have done earlier. The sculpture girls visit the painting room; the shop girls go to music. It shows plainly that the program has done what you thought it would do—it has created excitement about what other girls are doing. I believe that in the last four weeks in particular they realized that one art is united with the other arts. Discussions are taking place now that didn't take place at the beginning of the year.

My first feeling was that I wanted to establish in the room not too serious an atmosphere, although I was serious myself. I told the girls if they had an idea to get at it immediately. I let them do straight ceramics if they were a little timid about sculpture. The girls' work is rather small, but it doesn't have to stay small. Eventually a girl will gradually do larger things. It has to be gradual or there will be failure. I think it is important with these girls to have them work in a size and in a manner that, to some extent, will give them a feeling of being successful. . . .

A girl who works in one of the arts can balance up other things that happen in her life. Art takes one away from oneself. I think that in this New York City life, if we can give these girls through any of the arts an atmosphere of stopping, feeling, and listening, we are enriching them. I think we are doing this with the sophomores more than we realize.

In the spring of 1940 all the sophomores were asked to write down what they felt were the purposes of the sophomore program, and whether these purposes had been achieved. We quote one of these statements, as an indication of how the year's work is "evaluated" by the students:

The purpose of the year, as I see it, is to help us to grow through learning of the growth of various civilizations. It plays directly into the freshman year, in which we studied the growth and development of the individual. It all comes down to making us understand ourselves and the world we live in, through giving us an understanding of those who lived before us and the worlds they lived in. Throughout the year English, social studies, and art have worked together.

### *Juniors Learn "What Other People Know"*

At the end of the school year 1939-1940, the junior teachers expressed their sense of what juniors "are like" as follows:

Girls of junior age are trying to establish their independence and to enter the adult world. Marks of adulthood, to the girls, include emphasis on "work" rather than "play," and possession of a certain body of knowledge and its peculiar vocabulary.

Thus the students are ready to study Latin, French, English, mathematics, history, and science because their parents or other highly respected adults know them or even speak favorably of them. On the other hand, they are badly conditioned toward such subjects as their elders found difficult or uninteresting or of which they are ignorant.

The girls are ready for deepened self-understanding and an increase in their powers of critical analysis, combining statement and creative effort. In addition they are ready for the "big ideas" which have influenced mankind—the faiths, the ideals, and the ways of looking at the world.

This is not to say that there is a sudden transition from indifference to preoccupation in regard to these interests, but undoubtedly there is

a growing acceptance of adult standards and responsibilities which tends to differentiate sophomore from junior girls.

We feel that the junior year is insufficiently coherent as between departments. We have tried to remedy this in planning for next year. We feel that much remains to be done in bridging the break from the sophomore year.

The general theme of the year has been "The Dynamics of Modern Civilization." These dynamics, as we conceive them, are chiefly political, social, economic, technological, psychological, and spiritual.

It will be noted that the above statement does not mention such aspects of striving toward adulthood as increased interest in boys, "dates," and dancing, and the effort to reach a more mature relationship with one's parents. In so far as these enter into the relationship between teachers and students in the school, they tend to come in informal person-to-person contacts, rather than through any of the "courses." It may be that such aspects of living seem so highly "personal" to the girls that they prefer *not* to have any group discussion of them. Evidence from one year in which juniors were permitted to elect work in psychology with seniors, however, suggests that they are as ready as seniors for work in a group on some of these problems. Perhaps juniors are more conscious of the need for intellectual maturity and, since they cannot do "everything at once," the emphasis on getting "background" may be the experience they need most at this time. On the other hand, the marked attention to the intellectual in this year, with less time given to emotional and aesthetic development, may be at the root of our difficulty in making the junior year seem an integrated "whole" to both students and teachers.

The values which junior students find in their work are indicated in the report they wrote in February, 1940:

### *What Is the Junior Year About?*

In the junior year the broad ideas of civilization, arts, etc., are applied more exactly. We have a chance to develop our own interests. We learn to find sources, do accurate work, and apply scientific thinking. We find new ideas presented to us in literature, and learn to comprehend much that we did not understand before.

*Social Studies.* Besides gaining a basic factual knowledge of events that took place in the past, we also have had the opportunity to understand better what is happening in our own world. The direct bearing that the course of events we have been studying has had on the present world conflicts makes the study seem very alive to us. The topics we have done have enabled us to follow any interests we might have in connection with a specific study, and above all we have gained some knowledge on how to conduct our own research.

*English.* This study has opened up great new vistas in literature, in addition to giving us a chance to improve our free writing. Some students thought this course was not sufficiently tied up with the rest of our work.

*Chemistry.* The main aim of the year is to teach us to think clearly and more accurately than we have been in the habit of doing. It was felt that the presentation of an exact science such as chemistry is of the utmost importance, and that it should be completely clear at the beginning of the year how much ground and what content we are expected to cover.

*Physics.* The physics students liked the subject as it was taught, but thought that it took too much time in relation to the other subjects.

*French.* All felt that for the amount of time allowed for French they were gaining a great deal from it, but it was agreed throughout the group that languages as a whole should play a much more important part in our curriculum.

*Latin.* The Latin group was smaller than any other language group, and therefore each student had more opportunity to work on her own needs, but the same sentiment was expressed concerning the amount of time allotted to Latin as was said of French.

In the junior year we apply what we have learned before and get a good basis for future work. It is a year in which the student should be given a chance to define herself in more specific terms than was necessary before, and follow her own interests.

We all felt that, since we are given the chance to learn to use freedom in school, we will be much better equipped to be independent in the future. Also, since we have learned of what value freedom is, we will fight for its continuation all through our lives much more fervently than we would if we had never experienced it. . . .

In the evaluation of the year's work made by junior students, emphasis is placed on appreciation of techniques of thinking and working; these are valued quite as much as, or even more

than, the content studied. Many students agree with the staff that the work of subject areas is not sufficiently integrated into a "broader view." The achieving of such an integration is one of our most urgent problems.

Juniors seem to think in terms of "what we are expected to cover," more than do girls in the other classes. This is mentioned particularly in connection with the science courses, yet this attitude is entirely contrary to the purposes of the science teacher. The feeling of a need to respond to external "pressure" is indicated in a number of other statements made by juniors. A more careful exploration of the *sources* of the feeling that they must "cover work" may give clues for a solution of some of the problems which we find in the junior program.

We do not, of course, mean to imply that the present junior program is completely unsatisfactory. The students do achieve a great deal. We are, however, actively concerned to find ways of making the junior experience more compelling, vivid, and integrated.

### *Seniors Explore the Task of Living in the Modern World*

The senior teachers see the following as important aspects of the life of students in their last year in high school.

*General Aim of the Year.* All the experiences provided for seniors are directed toward an accelerated growth in their intellectual, emotional, and social maturity. We try to provide the girls with the security—realistic rather than protective—which they seem to need so urgently at this time.

Why this need for security? The senior year is an end point of one phase of their experience, and at the same time it is a steppingstone to experience of a wider and more complex nature. Both from independent observation of the girls and from comments which they themselves make, it is apparent that the final year of their school career brings with it much uncertainty. The seniors adopt an adult attitude toward girls in lower classes and toward younger brothers and sisters, and often insist upon the recognition of their maturity by their parents; yet they do not feel themselves to be as assured, as learned, and as independent as they had imagined seniors would feel.

They view the next step with both fear and anticipation, the majority of them with great humility concerning their ability to earn

a living in a business world which seems to them unprotected, uncertain, and highly competitive. They begin to question the wisdom of the protected environment in which they have been living.

They also spend much time thinking about marriage and the choice of a mate. The possibility of combining marriage and a "career" is a perennial problem to them. They are eager to discuss with a sympathetic adult such questions as these: How can a girl be sure she loves a man enough to marry him? If a girl falls in love with an older married man, can anything good come to her out of the experience? What happens to children when parents are divorced? Should parents who are uncongenial stay together for the children's sake?

The security each girl feels varies greatly in accordance with her individual personality, with her intellectual achievement, with her social success or the lack of it, and with her social, racial, financial, and family background.

In *planning the program* for this class of 45 girls, we had to take cognizance of the great range that existed in the interests, abilities, and maturity of the girls, and to provide for certain specific needs relating to the step immediately following graduation.

The question of college entrance loomed very large in the minds of most girls. Some specific help to enable girls to realize their wishes was provided in the curriculum in the form of:

1. Long consultations with members of the staff concerning choice of college or other types of school.
2. Some advice concerning letters of application, etc.
3. Intensive work in the theatre and painting for girls with well-developed interests in these fields.
4. Concentrated work in mathematics, in reading interpretation and vocabulary, for those girls who expected to take Scholastic Aptitude Tests—this, principally to give them a greater feeling of security.
5. The Vocational Conference, to help give direction to the thinking and planning of girls who were undecided as to what future course they wished to pursue.

Certain experiences were provided which enable the girl to grow in accepting responsibility, and we believe that there has been definite evidence of such growth. While seniors are expected to meet definite requirements in the quality and punctuality of work in all areas, there is wide latitude for the supplementing and modifying of group work, in order to make it personally significant. Seniors take greater responsibility for work in the school government, and for other activities

for the welfare of the school community. While the half of the class who had a marked interest in dramatics engaged in the production of a play, the other half spent the three weeks in individual specialization on some topic of their choice. Topics chosen fell for the most part in the areas of social studies, literature, psychology, and education. After consultation with her topic adviser, each girl was free to leave the building to get data as needed, to make her own arrangements for visiting schools, libraries, etc., or to spend her time studying the education of younger children in Dalton School. At the end of the period of specialization each student presented the results of her investigation to all senior staff members and students.

All studies in the different fields offered are designed to stimulate in the student the desire to understand herself, and to understand and contribute to the world in which she is living—to help prepare herself to assume an adult role therein.

Social studies, English, biology, psychology, and languages are closely interrelated both in objectives and in approach.

*Social studies* help the student gain a realistic understanding of the problems facing America and the world of today, together with a realization of her own responsibility as a citizen of this country and of the world at large. She has an opportunity to study the resources of this country, their development and distribution, and is able to have a firsthand experience of the complexity of the nation's government, when the whole class spends a week in Washington.

At the beginning of the year the distribution of poverty and wealth in the United States, and some of its more obvious consequences, were studied factually through a variety of sources.

In December and early January we turned to the problem of current civil liberties, the press, and propaganda—problems which naturally arise when individuals and groups advocate solutions to poverty and its related galaxy of special needs. During the next month three related enterprises were pursued:

1. A comparison of the apparent policies of the *Nation*, *New Republic* and *New Masses*, as revealed in the issues of a particular week.
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3. A study, made at the request of some students, of the causes of the first World War, in which the varying viewpoints held by Hayes, Langsam, Barnes, and Dutt were compared.

In preparation for the trip to Washington, a month was spent in



one of the arts: music, painting, sculpture, or crafts. For eight weeks they had a chance to experiment with the tools of that medium. At the end of eight weeks they went to another art, so that by the end of the year they had experience in four fields. Work in the dance was carried on in regular physical education periods.

This creative work accompanied a comparative study of several earlier cultures in their most creative periods. We wanted to look at previous cultures to find what was of *lasting* value, and what people of these cultures valued. How were these values expressed and achieved? How important is *group* expression? How have human beings satisfied their basic needs through religion, government, music, painting, etc.

The social studies teacher contributes the following account of this development:

The areas we have chosen for study this year are New England unfolding into its great age, Israel of the prophets (with a brief treatment of Jewish life since that time), Periclean Greece, and Medieval Catholic Europe, with a longer or shorter study of China of the Tang dynasty. We still have a problem of selection, because of the student desire to go deeper into one or more of these, as well as the faculty realization of the claims of other cultures—of India, of ancient America, of primitive life, of the Arab and Moslem world.

A study of New England was magnificently launched in connection with a week's trip to Concord and Boston. Cherished New England values, hardly sensed before, are realized. The actual complex relationships of a culture are experienced beyond their neat, tidy arrangement in books. The total resources of our library are enlisted, and students are free to explore these books both before and after the trip.

For the study of Israel and the Jews, we used passages of the Bible; *Stranger than Fiction*, by Lewis Browne, which tells dramatically the whole story of the Jews to our own day; descriptions and map studies of Palestine itself; and some materials on the growth of ethical vision in the Bible, related to the development of the Bible. The Gospels and early Christianity are included as part of this study of the cultural achievements of the Jews.

[It is the purpose of the staff to give the students during their four high school years contact with and understanding of the Jewish, Catholic, and Protestant faiths. Some students make studies of other great religious faiths.]

This year the study of Greece proved to be the most stimulating experience, and the study of Greek drama the greatest solvent. Through lantern views and photographs from the Metropolitan Museum important works of Greek architecture, sculpture, etc., became familiar.

The study of the Catholic culture in the Middle Ages gained impressiveness and intimacy by a stay of twenty-four hours in a Catholic convent. The basic ideas of the Catholic faith, the spread of Christianity from Palestine, the nature of the medieval Catholic society, were studied. Many other aspects of the Middle Ages came in also—the effects of the Germanic invasions; the influence of Christian Byzantium; the course of the Crusades; the feudal system, based on the agricultural manor; some references to medieval science, coming through the Nestorians, Arabs, and Jews.

Many discussions on fundamental needs of man have taken place in relation to the cultures explored. Tolerance and interest in the unfamiliar in life and religion are recognized by the girls as among the important achievements. Long range initiative has been shown by many. Highly significant life interests of the serious but unaffected quality have been awakened.

The teacher of sculpture reported on how she had become a "convert" to the program of exploration in the arts:

Today, as the year draws to a close, I am pretty much of a convert to the sophomore program. I had said in the beginning of the year that girls couldn't learn sculpturing in eight easy lessons, but I am a changed woman now! After the year gets going, the girls rotate around the different rooms to see what the others are doing in the art they have done earlier. The sculpture girls visit the painting room; the shop girls go to music. It shows plainly that the program has done what you thought it would do—it has created excitement about what other girls are doing. I believe that in the last four weeks in particular they realized that one art is united with the other arts. Discussions are taking place now that didn't take place at the beginning of the year.

My first feeling was that I wanted to establish in the room not too serious an atmosphere, although I was serious myself. I told the girls if they had an idea to get at it immediately. I let them do straight ceramics if they were a little timid about sculpture. The girls' work is rather small, but it doesn't have to stay small. Eventually a girl will gradually do larger things. It has to be gradual or there will be failure. I think it is important with these girls to have them work in a size and in a manner that, to some extent, will give them a feeling of being successful. . . .

A girl who works in one of the arts can balance up other things that happen in her life. Art takes one away from oneself. I think that in this New York City life, if we can give these girls through any of the arts an atmosphere of stopping, feeling, and listening, we are enriching them. I think we are doing this with the sophomores more than we realize.

In the spring of 1940 all the sophomores were asked to write down what they felt were the purposes of the sophomore program, and whether these purposes had been achieved. We quote one of these statements, as an indication of how the year's work is "evaluated" by the students:

The purpose of the year, as I see it, is to help us to grow through learning of the growth of various civilizations. It plays directly into the freshman year, in which we studied the growth and development of the individual. It all comes down to making us understand ourselves and the world we live in, through giving us an understanding of those who lived before us and the worlds they lived in. Throughout the year English, social studies, and art have worked together.

### *Juniors Learn "What Other People Know"*

At the end of the school year 1939-1940, the junior teachers expressed their sense of what juniors "are like" as follows:

Girls of junior age are trying to establish their independence and to enter the adult world. Marks of adulthood, to the girls, include emphasis on "work" rather than "play," and possession of a certain body of knowledge and its peculiar vocabulary.

Thus the students are ready to study Latin, French, English, mathematics, history, and science because their parents or other highly respected adults know them or even speak favorably of them. On the other hand, they are badly conditioned toward such subjects as their elders found difficult or uninteresting or of which they are ignorant.

The girls are ready for deepened self-understanding and an increase in their powers of critical analysis, combining statement and creative effort. In addition they are ready for the "big ideas" which have influenced mankind—the faiths, the ideals, and the ways of looking at the world.

This is not to say that there is a sudden transition from indifference to preoccupation in regard to these interests, but undoubtedly there is

a growing acceptance of adult standards and responsibilities which tends to differentiate sophomore from junior girls.

We feel that the junior year is insufficiently coherent as between departments. We have tried to remedy this in planning for next year. We feel that much remains to be done in bridging the break from the sophomore year.

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In preparation for the trip to Washington, a month was spent in



studying the functioning of the federal government, both as to machinery, social action for modern needs, and conflict over present policies.

The final month of the year was devoted to individual pieces of research on significant contemporary problems chosen by the student. Time was set aside for research in larger libraries, as well as for interviews. The establishment of maturer habits and attitudes and adequate personal poise in out-of-school situations of an adult type were striven for, and in a large measure realized.

*English* is the study of contemporary expression in its most significant forms. There is opportunity for each girl to further her techniques of communication, both in understanding the ideas of others and in expressing her own. Through English, as through psychology, she is helped in understanding herself, and the bases for the ideas and opinions she holds. She is encouraged to become self-critical, to analyze the reasons for her dislikes and preferences, to understand her own limitations, and to discover ways of overcoming them. We try to help her in her capacity to see visual images, to respond through the senses to personal experiences, to realize the connection between memory and imagination, and to express these experiences and her emotional reactions to them in her free writing.

All seniors study social studies and English, and may choose two of the following electives: mathematics, French, biology, psychology, art. A few girls study art as a fifth subject, and another ten or twelve spend one or two afternoons and an occasional morning in the painting studio.

*Psychology* was first offered as an elective for seniors in 1937-1938. The course does not include the materials usually presented in a first course in psychology in college, and it would be better described as a course in "Human Relations."

The work in psychology helps to give the student an understanding of her own purposes and patterns of behavior, so that she may more effectively develop toward maturity. It contributes toward a similar understanding of the purposes of others, and thus to more satisfying relationships with them. In psychology, as in English, social studies, and biology, the student is encouraged to observe and to record accurately and objectively different patterns and problems of human behavior, prior to deducing the forces and motives which condition them.

The year's work began with a study of young children, using the students' memories of their own childhood to initiate the discussion.

Previous experience in the babies' Nursery also provided material. Some of the students did fairly intensive observation in nursery schools and kindergartens throughout the city, and wrote reports on this experience. The study of young children was followed by study and observation of children in the Dalton elementary and junior high schools.

The chronological sequence was then interrupted to make a study of intelligence and its varied manifestations, and of prejudice. Girls who were planning to take the Scholastic Aptitude Test for college entrance, and others who were selecting special professional schools for the following year, were beginning to show marked concern as to I.Q.'s, comparative scores on other tests, etc. It seemed possible that a study of the many ways in which intelligence is manifested, the limited usefulness of many "intelligence tests," and of the part fear and other emotional blocks play in reducing the effective use of one's ability might help relieve tensions and insecurity in a number of the girls. Because prejudice is so often "justified" on the basis of supposed differences in "intelligence," and because of the relevance to problems which were arising in social studies discussion, considerable time was given to a study of the psychological bases of prejudice.

The psychology of adolescence was discussed briefly, and then each student chose a topic for individual exploration. These included the study of adolescents' relations with their parents, problems of the education of adolescents, the psychological problems of youth in the depression, and the adolescent delinquent. The final part of the course was concerned with problems of adult life, especially those of work and marriage.

Topics which received special attention throughout the year included the influence of parent attitudes on the development of young children; the active and passive approach to life; attitudes toward success and failure; the purpose of competitive behavior, in the life of the individual and in society; problems concerned with interest and worry; making friendships; the individual's responsibility for his own behavior; the influence of prevailing cultural patterns on the individual's behavior.

Students are encouraged to make increasing use of their growing understanding of human behavior in their free writing, and about half the psychology group believe that their work has had a definite influence on their writing. Moreover, written work for the course may be in the form of stories, dramatic sketches, or poetry, as well as in essay form.

*Looking Toward the Future of the Dalton Schools*

The Dalton staff is wholeheartedly committed to experimentation in education: we are really concerned with finding better ways of making provision for the *learnings* of high school students. We believe that experimentation in education must include the following:

1. *More exact definition of the problems we are trying to solve.* For example, in the beginning of our participation in the Eight-Year Study, we knew that the curriculum the high school had been using was not adequate for meeting the purposes of adolescent girls, and that much of it had little relevance to the needs of our society. We knew that we wished to help students develop "social awareness." But our objectives were markedly lacking in specifics. In the preceding sections of this discussion, we have reported some of our attempts to see our problems more clearly and specifically, and have indicated a few of the points at which we are still seeking for more exact definition.

2. *A clear, informed, and realistic knowledge of the society in which we live*—of the forces in it which actively hinder a co-operative way of life, as well as those which are favorable to democratic living. We need to know which of the aspects of our culture are most directly influencing the lives of the particular girls we are educating. We are conscious of the fact that staff members have, during the past seven years, done a great deal to educate one another in this respect; but most of us still feel the need of a more vivid realization of the society we live in, and of its impact on our students. We are also becoming more conscious of the fact that each teacher must free himself from his own early prejudices and feelings of insecurity, in order that he may have the courage to look objectively at the modern world.

3. *An understanding of the process of learning in the individual human being.* We are concerned with the *organic* nature of learning—with the fact that a student learns as a *whole human being*—not as a "mind" at one time, a "body" at another, etc. We are just beginning to understand something about the way in which attitudes, and their resultant behaviors, are learned. To

have some insight into the process by which a child learns to be fearful or courageous, "grabbing" or cooperative, has come to be as important to us as knowing when to use the "part method" in rote memorizing.

4. Since we are educating adolescent girls, we need to know *at what ages particular concerns and interests are likely to arise*—not only in terms of physiological development but also in relation to cultural demands and pressures. Much of the staff's learning in the past seven years has been related to an increase in knowledge of "what makes sense" to girls of different ages.

5. We believe that the kinds of "data" listed under 2, 3, and 4 above must be seen in *interaction* with one another, and this is perhaps the most difficult of our tasks. It is here that our experimentation may be nearest to a process of "trial and error." In so far as we have succeeded in providing an educational environment for our particular students, it has been at points where someone—either staff member or student—has had a moment of insight as to ways in which the nature of the "world outside school," the purposes of the adolescent, and the "learning process" might be fused into a vital experience. Suggestions arising from such "moments of insight" are submitted to the whole staff (and often to groups of students) for criticism and development, and are accepted for use only when a large majority of the staff approve them.

6. As a "solution"—whether of content, method, or experience—becomes part of the educational program of a group, *we try to collect evidence as to how well the "solution" is working*; that is to say, we try to evaluate as the life of the school goes forward, as well as at the end of the experience. Some of this evaluation is highly impressionistic, while some of it is more exact. What students say in informal conversations; results from student questionnaires; stenographic records; minutes of staff meetings; student's free writing, painting, etc.; results of a variety of tests—all serve as material for evaluation. Our most serious difficulties in evaluating any experimental procedure seem to be the following:

- a. A tendency to evaluate on the basis of one or two kinds of material, instead of balancing *all* the data available.

- b. A tendency to give too much weight to the expressions of the more talkative students, or to those of the "best students."
- c. Some tendency to disregard negative findings, especially when they tend to discredit an idea which some of the staff were "sure would work."
- d. The tendency, already noted, on the part of some teachers and students, to expect students to "learn everything at once," and to judge an experimental procedure as unsuccessful if it takes a great deal of time from other valued objectives. We realize that our evaluation procedures need to improve especially in the direction of removing these four obstacles.

We believe that our most marked progress during the past seven years has been in the following areas:

- 1. The democratic organization and administration of the school, with faculty and students working directly and cooperatively at the task of building an educational program.
- 2. Increasing provision for an "environment in which education can take place"—through the School Government, plays, trips, the babies' Nursery, etc.—an environment in which *active experiencing* is encouraged.
- 3. Provision for creative expression, especially in the arts, for all students.
- 4. Increasing concern for the welfare of others, whether in face-to-face relationships or for those in more remote groups. The development of *courage* with which to attack the difficult problems of today's world.
- 5. A growing understanding of all that democracy means in practice, rather than a verbal acceptance of democratic "slogans."
- 6. An eager desire to find better ways of educating young people, rather than to "repose on aught found made."

In all of these areas we should be able to improve our procedures as we work at them longer. We recognize particularly the need for more rapid student development in techniques of thinking, more skillful teaching of foreign languages, more

knowledge and skill in helping students grow toward emotional maturity, a greater willingness on the part of *all* members of the staff to use only such subject matter as is definitely relevant to the purposes of students who are growing to maturity in a democratic society.

## DENVER HIGH SCHOOLS

DENVER, COLORADO

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#### *The Beginning of the Experiment*

The participation of the secondary schools of Denver in the Eight-Year Study of the Relation between School and College, which began in 1933, has been related to the Denver policy of continuous curriculum revision. Such revision has been under way since 1922, when the expansion of the building program in the Denver schools led to a recognition of the need for a curriculum which would be as well adapted to the educative process as were the new buildings and equipment. When the *Denver Program of Curriculum Revision* was published in 1927, the new courses of study were then in use in all the schools of Denver. They were hailed, not as the end of an epoch of reform, but as the beginning of renewed effort to make the curriculum contribute to the means "of pupil growth through purposeful activity in life situations and to the acquisition of the social inheritance with reference to full and complete living in the world today."<sup>1</sup>

It is characteristic of the concern which the Denver Public Schools have had for the development of their program as a whole that, when the opportunity came to work with the Progressive Education Association in the Eight-Year Study, the administrators and directors of the schools requested permission of the Association to include all five of the senior high schools of Denver in the Study instead of selecting only one. As further evidence of this spirit, the ten junior high schools of the city were invited in the fall of 1938, after the Study had been carried on for five years, to join the high schools in their search for more significant educational experiences for young people.

<sup>1</sup> Denver Public Schools, *Denver Program of Curriculum Revision*, 1927, p. 21.

A summary of the Study in Denver is not so much the record of 15 different schools as the record of the attempt of a whole school system to attack the problems of secondary education along a broad front. Although each secondary school was granted complete freedom to work out its plans and to design its program in the light of its own problems, nevertheless common problems were continually stressed and central committees were set up to make possible the exchange of ideas among all the schools so that each might benefit from the experiences of the others. As is natural and desirable under conditions of study and experimentation, the programs that have been evolving in the five senior and ten junior high schools have varied in many ways: in administrative design, in the number of pupils involved, in the time allotted from the school day, and in the content of the curriculum itself. Such variations have been responsible for a growing realization that a school system must develop many resources and many avenues of approach to problems if it is to be flexible enough to be of service to a changing community. After eight years of direct attack upon the problem of helping young people to find more and more effective learning experiences, the secondary schools of Denver are just beginning to be willing to indicate the nature of what might be termed the Denver program. The values, principles, and practices to which the secondary schools give their allegiance today have been evolved from many years of discussion, of intense disagreement, of forbearance, and of compromise. Those statements of objectives, practices, and outcomes found in this report have come from group thinking in which administrators, supervisors, principals, classroom teachers, pupils, and parents have participated.

*The Schools of Denver—  
Their Pupils and Their Clientele*

To understand the problems with which the secondary schools of Denver are concerned, it is necessary to know the setting in which they carry on their work, a setting which is complicated by being city-wide instead of being limited to a single school community. Denver is a comparatively young city which in a period of 80 years has grown from a cluster of log cabins



at the intersection of the Platte River and Cherry Creek to a city of 322,412 people. Originally important as a gateway to the mining country in the mountains to the west, the city has become a distributing center for all the Rocky Mountain region. In Denver and its environing towns are located such industries as beet-sugar refining, slaughtering and meat packing, baking, canning and preserving, printing and publishing, grain milling, rubber manufacturing, automobile assembling, and the making of mining machinery. Mining for metals and coal and securing building stone and kaolin are characteristic occupations of people of the Denver region. As a railroad junction, the city is a center for railroad shops. It shares an active tourist trade with the rest of Colorado, and is a center for the marketing of wool from the Rocky Mountain region. In addition to these specific pursuits, Denver people carry on the usual commercial and professional occupations characteristic of a modern American city.

An account of the industrial, business, and professional life of Denver gives only a partial picture of the character of the city, which derives its uniqueness less from its occupational opportunities than from the civic spirit of its people. Denver is known as a place where living itself has a particular zest and flavor. The mountains and clear air which attract tourists to the region have an effect upon the people who live in such surroundings. From the early days of Central City "culture" to the present, people who have come to Denver have generally brought with them a conviction that a city is important both as an economic center and as a place where adequate living should be provided in all phases of life. Led by citizens who were convinced of the importance of the influence of homes, gardens, parks, boulevards, schools, universities, museums, libraries, and musical organizations in the life of a city, the people of Denver have developed civic pride and responsibility which extend beyond the small group of wealthy sponsors who in many cities are likely to carry alone the task of building the resources of good living.

The schools are closely linked with the growing culture of the community and are looked upon as vital to the furthering

of civic responsibility in young people. The high school bands and orchestras stimulate interest in musical organizations and have become an important resource for the Junior Symphony Orchestra, which counts among its members young people in both high school and college. The city library works closely with the schools; the museums are a constant resource for classes of pupils, who are taken on trips in school busses to study the arts, the plant and animal life of the region, and historical materials. Also, speakers from these institutions supplement the work of classroom teachers. Welfare organizations, working under the Community Chest, have cooperated with the schools in giving young people an opportunity to share in the work of the nursery schools and to learn how Denver cares for the rehabilitation of those of its people who are in need.

An index to the occupational life of Denver, particularly that of the group served by the high schools, is given in the following summary of the occupational distribution of the parents of senior high school pupils, taken from a study made in January, 1935:<sup>2</sup>

| <i>Occupation</i>                       | <i>Percentage</i> |
|---|-------------------|
| Agriculture and Forestry                | 1.8               |
| Extraction of Minerals                  | 1.1               |
| Manufacturing and Mechanical Industries | 26.7              |
| Transportation and Communication        | 10.7              |
| Trade                                   | 27.3              |
| Public Service <sup>3</sup>             | 4.9               |
| Professions                             | 10.6              |
| Domestic and Personal Service           | 11.0              |
| Clerical Occupations                    | 5.9               |

Significant differences between the occupations of the parents of Denver senior high school pupils and the occupations of the population of the country as a whole are found in the areas of manufacturing and clerical occupations, which are respectively 2.2 and 2.3 per cent less in Denver, and in the areas of public

<sup>2</sup> The study was made under the direction of Miss A. Helen Anderson for the Publicity Department of the Denver Public Schools. The occupational areas were taken from the United States Census.

<sup>3</sup> This is a growing occupation in Denver.

service, professions, and trade, which are respectively 3.1, 3.9, and 16.8 per cent greater in Denver.

Of even more significance to one who would understand the educational planning within the Denver schools is a recognition of the contrast in the occupations of parents of pupils within the city itself. Two of our schools draw heavily from the professional, managerial, and clerical groups, while two others draw heavily from skilled and unskilled labor and from domestic and personal service. In one school those parents engaged in trade are largely bankers, proprietors, salesmen, and retail and wholesale dealers, while in another the parents engaged in trade are largely clerks, retail dealers, and salesmen. Parents from one school who are engaged in manufacturing and mechanical industries are classified chiefly as builders, contractors, managers, and mechanics, while in another they are classified as mechanics, carpenters, and painters. Although some overlapping in occupational distribution occurs, there are sharp contrasts in the economic and social opportunities afforded the young people who attend the five high schools of the city, factors which have to be taken into account in understanding the educational program of the schools.

Just as the parents of the pupils in Denver high schools differ in occupations, so do they differ in the kinds of homes which they provide for their children. Although Denver is comparatively free from slum areas, 30 per cent of the dwellings of the city have been found to be substandard.<sup>4</sup> Among these dwellings are 2,680 shacks which are unsanitary and overcrowded. A study of a map showing the location of substandard areas reveals that, although every high school community includes some shack housing, two high schools receive pupils from the areas where shacks are most prevalent. In characterizing its clientele, one of these high schools writes:

There are 2,264 pupils, most of whom come from homes of very low economic level. About 47 per cent of the homes are supported by public relief or W.P.A. The housing of a large number is, therefore,

<sup>4</sup> Reported in *Homes for Low Wage Earners of Denver*, a publication of the Housing Action Committee, Denver, 1940.

inadequate. There are few books, magazines, or newspapers in the homes.

A shifting population results in a large number of dropouts annually. (The average for two and one-half years is 22.8 per cent.)

While many parents are interested in helping to plan for the education of their children, probably a majority accept the plans of the school and the wish of the pupils without question. Since they themselves have missed the opportunities of schooling, they feel they do not know about the details of choice of subjects and so leave the decision mostly to the pupils.

In direct contrast is the report of another Denver high school:

The pupils generally come from homes of considerable influence and affluence. In spite of an increasing transient element from cheap rooming and boarding houses that are springing up in the older sections of the school community, the parents as a rule are in the upper economic levels of the city and live in favored residential districts. The parents are usually well educated and have a very definite conception of the kind of education they wish their children to have.

Closely related to the economic and social variations are the differences in the percentages of graduates of the five high schools who go to college. One high school sends 66 per cent of its graduates; one, 50 per cent; one, 28 per cent; one, 10 per cent; and one, 8 per cent. The old emphasis upon the high school as a college preparatory institution is challenged by such figures. In Denver many curriculum changes are being made in terms of the experiences which should be provided for young people who are not going to college.

The population of Denver is predominantly native white. In comparison with 23 other American cities of from two to four hundred thousand population, Denver ranks second with 84 per cent of its population native white. This figure is exceeded only by that for Dayton, Ohio, with 85.5 per cent. Such a condition means that the secondary schools of Denver do not have a serious racial problem. However, there is a growing need in certain sections of the city for a more specific attack upon the problem of providing a curriculum which meets the needs of pupils of different nationalities. In the year 1939-1940 the high school population showed the following racial division:

|                    | <i>Native-born<br/>White</i> | <i>Foreign-<br/>born<br/>White</i> | <i>Negro</i> | <i>Japanese<br/>and<br/>Chinese</i> | <i>Spanish-speaking<br/>American<br/>and Mexican</i> |
|--------------------|------------------------------|------------------------------------|--------------|-------------------------------------|--|
| Junior High School | 10,559                       | 34                                 | 323          | 31                                  | 908  |
| Senior High School | 10,582                       | 66                                 | 263          | 45                                  | 380  |
| Total              | 21,141                       | 100                                | 586          | 76                                  | 1,288  |

Because of the tendency of groups of similar social and economic status to live in the same areas of the city, one high school is primarily concerned with providing educational experiences for a heterogeneous group in which Negroes, Orientals, and Spanish-speaking Americans and Mexicans share with native and foreign-born whites in the life of the school. Another school plans its curriculum for a homogeneous group of native-born white pupils who are not concerned so closely with the problems of adjustment among various races.

### *Physical Facilities of the High Schools*

The physical facilities of the high schools in Denver are generally good. Three of the five senior high school buildings were completed in the building program carried out from 1923 to 1927. During this period the two other buildings, one erected in 1912 and the other in 1896, received additions in the form of new gymnasiums and playing fields and of remodeled classrooms. In general, each high school has a central library of several thousand volumes and classroom libraries in such subjects as English, biology, social studies, commerce, chemistry, and home economics. Well-equipped science laboratories and spacious and generally well-equipped shops in home economics, woodwork, machinery, and printing offer opportunity for much firsthand experience. Art laboratories for designing, drawing, and painting are in every senior high school, and opportunities for clay modeling are offered in two. There are generally adequate classrooms and gymnasiums for both boys and girls. Grounds for outdoor sports are provided for every school and include,

in some schools, a grass football field, a baseball diamond, a cinder track, and tennis courts. Clinics where examinations are held by school doctors and nurses are generally available, as well as rooms equipped with cots for the use of pupils who are in need of supervised rest. In every senior high school is an auditorium with a stage. The new buildings are close to public parks.

Overcrowding is one of the chief problems which the senior high schools face in adapting their programs to the changing curriculum. Even in the high schools which seemed spacious when they were built, there is difficulty in releasing laboratories for the use of pupils at any time during the day.

Of the ten junior high schools, seven have been erected since 1920. Their facilities compare favorably with those described above. Three junior high schools are housed in old buildings which are less adequately equipped, although every effort is made to equalize opportunities most significant in education.

In addition to the facilities offered to the educational program within the various high school buildings, there is a central administration building in which meetings of committees of teachers, supervisors, and administrators are held. This building houses administrative and supervisory offices, a professional library, a film library (a recent departure in school services), a health department, and a growing collection of materials in the fine arts for the use of teachers and pupils.

### *Community Relationships*

With the growing interest toward giving young people an opportunity to supplement their school experiences with first-hand knowledge of the community, closer understandings are sought between those who work in the schools and the men and women who carry forward the life of the city as a whole. Factories, retail stores, newspaper plants, public service companies, and others are making it possible for young people to study the productive life of the city. Federal, state, and municipal institutions, such as the Denver Water Works, the State Legislature, law courts, the city jail, and the Colorado General Hospital are open to visitors from the schools.

Of particular influence in recent years effecting a closer re-

lationship between the public schools and the occupational life of the city has been the vocational adjustment service which has been developing at Opportunity School. This service has three vital aspects:

1. Guidance, in which a direct attempt is made to discover the special vocational abilities of an individual and the kind of job for which he can be most efficiently trained.
2. Training, in which he is taught the specific skills which he needs to develop.
3. Placement, in which he finds his new job.

The responsibility of keeping this agency at the point of greatest service both to industry and to the people in need of employment is carried by coordinators who, through a continuous contact program with the industry of the city, have available the most recent information about job opportunities and about the qualifications of the men and women needed. Coordinators work in four areas:

1. The occupations of women.
2. Trade occupations and apprenticeships.
3. Service occupations.
4. Distributive occupations.

The coordinator's responsibility in each area is to attempt to determine whether employers need employees and what the qualifications of those employees should be, to discover how the occupational adjustment service through the classes offered in the Opportunity School can improve the work of those now employed, and to discover occupational trends, devices, and processes so that the training offered at the school may be realistic and up-to-date.

Occupational adjustment is offered to three kinds of people: young people who are seeking their first job, older people out of employment who need to refresh old skills or to develop new ones, and people who are already employed but who wish to improve their abilities.

The work of placement is carried on by the cooperative endeavors of the schools, the Colorado State Employment Service, and the National Youth Administration. Such cooperation is not theoretical but actual. All three agencies have pooled their

efforts and submerged the idea of individual credit to the purpose of providing a real occupational adjustment service to the community.

Associated with the occupational service agency described above is a vocational coordinator at one of the senior high schools, whose work has been made possible by a grant of the General Education Board. His chief responsibility is to assist all teacher-counselors in helping young people in the school to make an effective transition between their activities in school, which are seldom pointed directly toward some specific vocation, and the labor market into which pupils enter at graduation. The vocational coordinator heads a school placement service for pupils for part-time jobs in the school neighborhood and makes arrangements for training pupils for some of these jobs in the school itself. He makes contacts with leaders in the community who can assist graduating seniors in becoming oriented to the labor market and possibly can help individual pupils locate full-time employment. He helps counselors to find materials relating to various occupations and assists the school in giving pupils an opportunity to choose an occupation, develop a work history, and make a plan by means of which they can begin to solve the difficult problem of adjustment to the labor market. In this way pupils approach the subject gradually, and the community problem of absorbing young people each year into the labor market is met realistically. This is in contrast with the present general practice of letting young people go blindly into the task of job hunting, ignorant of the factors involved and forced to cope with continuous rebuffs and disappointments.

### *Democratic Philosophy and Practice in the Denver Program*

In 1927 a statement by the administrative staff concerning the Denver program of curriculum revision expressed faith in a democratic philosophy of education and life, which has its chief expression in cooperative action and which guarantees to each individual participation in "the whole scheme of intelligence to the extent of his capacity."<sup>5</sup> Such concern for democratic val-

<sup>5</sup> *Denver Program of Curriculum Revision*, cited, p. 18.



ues in the Denver schools has found expression in such practices as the development of a single salary schedule for teachers, the planning of courses of study by committees of teachers in consultation with administrators and supervisors, and the general freedom given to teachers in the carrying on of their classroom practices. Regimentation has never characterized the Denver program, which has been rooted in the belief that "any educational philosophy which implies that the teachers are not to think for themselves but are merely to take orders from a few at the top is entirely antithetical to the spirit of democracy which is the dominant spirit of America."<sup>6</sup>

The concept of American democracy, already inherent in the philosophy of the Denver program for many years, became more clearly defined in the course of the Eight-Year Study. Democracy is increasingly regarded by many educators in Denver as a way of life which exacts from its followers a devotion to the ideal of widening participation among men in the solution of their common problems. They have recognized that in a democracy all concerned should share in the solution of common problems, and that a democracy predicates faith both in the dignity and worth of individuals and in the ability of men to solve their problems cooperatively through the free play of intelligence.

*The Significance of the Philosophy of Democracy for the School Program.* Such faith in democracy has given special meaning to the study of the behavior characteristics which the Denver schools wish to develop in young people. The changes which they wish to effect in boys and girls are changes in the direction of increasing ability to share in democratic living. Whatever makes for functional information, for social sensitivity, for the disposition to think critically, for skills and habits of work, for the development of attitudes and interests, and for value patterns and appreciations is significant to the degree that individuals are growing in ways that are consistent with the democratic ideal of the fullest possible development of each human being. This faith in democracy saves the Denver schools from being cut off, as many institutions are, from the main stream of human activity. It

<sup>6</sup> *Ibid.*

saves them, too, from a temptation to be concerned with the needs of children apart from the needs of society as a whole.

*The Most Recent Statement of the Philosophy of the Denver Schools.* In this way the objectives of the Eight-Year Study, which began as a concern for the better adjustment of individuals to college and university life, are growing into a concern for the better adjustment of all individuals to democratic living. Mastery of learning, more continuity in learning, a release of creative energies, and a clearer understanding of the problems of our civilization have expanded to include the whole problem of social living. The following statement of the philosophy of the Denver schools as a whole is the outgrowth of the Eight-Year Study and was planned by a committee representative of the elementary schools and junior and senior high schools of the city:

*Statement of the Philosophy of the Denver Public Schools*

In formulating its philosophy, a school must determine its own beliefs concerning the nature of the individuals with whom it works and the character of the society which it serves. The Denver Public Schools regard human beings as dynamic and purposive, with a capacity for growth and the ability to develop through experience. The schools of Denver believe that a democratic society is the society most congenial to the optimum development of such individuals. Democracy, so conceived, is a way of life. This includes at all times: (1) the free play of intelligence, (2) respect for the worth of individuals, placing human values first, and (3) the participation of all individuals in social living, which is broadly interpreted to include all human relationships.

The chief function of the schools in a democracy is to conserve and improve the democratic way of life. The Denver Public Schools maintain that they can best undertake such a responsibility by:

1. Making the life concerns of pupils the central theme of the curriculum.
2. Recognizing that individual concerns and social concerns are interdependent.
3. Making functional guidance an integral part of all educational activities.
4. Evaluating the school program in terms of the personal and social growth of pupils.

5. Organizing the school program to reveal the essential relationships of learning.
6. Providing a close, direct, working relationship with the community.

This philosophy has guided the Denver schools in setting up the objectives of their program. The ultimate goal is the development of individuals who deal with their problems more and more effectively in terms of their own good and the good of society. "Good" for the individual is interpreted as that of maximum health for the total personality, with capacity for rich and effective living in proportion to the opportunities of his environment. "Good" for society is interpreted as the democratic way of life, where human personality is considered unique and above all other values and where each individual participates in the common life in terms of his capacity to contribute. Such a society depends upon the free play of intelligence for the solution of common problems.

#### *Present Objectives of the Denver Program*

Accordingly, the Denver schools have stated their immediate objectives in terms of behavior characteristics of the individual—characteristics which fuse and interact with one another to bring about maximum personal and social development. It is the purpose of the Denver schools to assist each pupil in growing in:

1. Command of functional knowledge.
2. Effective habits and skills.
3. Sensitivity to significant problems.
4. Ability to think clearly.
5. Control of conduct in accordance with purposes and ideals appropriate to a democratic society.
6. Acquisition of a broad range of interests with deepening concern for one or two fields.
7. Development of appreciations, understandings, and creative powers which increase awareness of and response to the aesthetic aspects of experience.

The major areas of living with which the program of the Denver schools is concerned have been variously named. Some of the schools have adopted the categories chosen by the authors

of *Science in General Education*: Personal Living, Immediate Personal-Social, Social-Civic, and Economic Relationships. Others have preferred the names given to these same areas by the Educational Policies Council: Self-realization, Human Relationships, Civic Responsibility, and Economic Efficiency.

Classification into such areas has been found to be useful in helping teachers discover the extent to which knowledge and skills, sensitivity to problems, and appreciations and interests have meaning in the lives of boys and girls; they serve as a valuable check to the planning of teachers and pupils so that their purposes are broadly conceived.

### Conclusions

One of the outcomes of the participation of the Denver secondary schools in the Eight-Year Study has been the increased emphasis given to the development of a school program in terms of clearly defined purposes. Denver educators have become increasingly conscious of their own shortcomings in thinking through the underlying assumptions of their curriculums. Administrators, teachers, parents, and pupils are still in the process of clarifying the objectives of education in the Denver Public Schools and of learning to use them. There are many statements on paper; there is none to which everyone gives unqualified allegiance. And that is as it should be in a society which values individuality and differences of opinion.

Nor can it be assumed that teachers and pupils all plan their work together in terms of the philosophy and objectives which have been listed above as characteristic of the Denver Public Schools. In the classes in the Eight-Year Study and in many other areas of the school, pupils are given a share in the setting up of individual and group objectives and in helping to think through the purposes of their education in a democratic society; in many others no such sharing goes on. But the movement has begun. Teachers and administrators are becoming increasingly able to state clear goals for the development of school experiences and to carry the purposes of the program into action.

### THE ORGANIZATION OF THE STUDY AND THE DEVELOPING CURRICULUM

#### *Early Organization*

Under an agreement with the Commission, all five Denver high schools were included in the Study. In each school two teachers, one in English and one in social studies, were selected to work on the objectives of the Study with one class of forty pupils who were entering the tenth grade. Each year one class was added from the incoming pupils, thus augmenting slowly the experimental group which was being set up in each school. The teachers were chosen by the principals in each building. The pupils were selected by the teachers of the junior high schools according to the following criteria:

1. That the pupils should be average or above in the ability to do schoolwork.
2. That they should be, as far as possible, the kind of individuals who would profit by experimentation and new ways of doing.

No pupil was admitted to the Study without his parent's consent. Both teachers and pupils were held responsible for cooperating in the venture and were chosen because of their interest in the undertaking.

#### *The Correlated Curriculum*

The choice of teachers from the fields of social studies and English was made for two reasons:

1. That social studies and English formed a two-year constant which ran through the high school program and represented, together with physical education, the required courses for graduation.
2. That fusion of the learning experiences provided in these two fields had been undertaken in some of the experimental work already going on in the senior high schools.

To many teachers such learning experiences seemed particularly well suited to handling the problems of group life, some of which the experiment sought to consider.

Only one high school set up at the same time a third area of

required work in science for the experimental group in the tenth grade. The threefold theme of the year in this class was:

1. The Impact of Science upon Present Living.
2. Superstition versus Science, including the study of 150 common superstitions.
3. Health versus Disease, with emphasis upon both individual and community problems.

### *Early Administrative Setup Within the Schools*

In all five high schools, plans were made so that the pupils and teachers in each incoming group would remain together for two or three hours a day over the three-year period. Such close association of the group was considered necessary in order that pupils and teachers might plan together over an extended period of time and in order that through such association teachers might come to a better understanding of these young people and the problems facing them. Thus the teachers became the counselors of the group and carried the chief responsibility for educational, vocational, and social guidance. The pupils spent the other hours of the school day in classes and study halls, where they worked with other pupils in the regular high school program. Thus their electives in mathematics, foreign language, science, and the arts were chosen from the program already in operation.

*Difficulties Encountered.* Such an arrangement had both good and unfortunate results. As the pupils in the Study were never entirely isolated from the influences of the program already functioning, it was practically impossible to identify the particular experiences which made for desirable changes in pupils. Some teachers outside the special areas set aside for curriculum study employed more of the methods identified as "progressive" than did some of the teachers in the Study. Pupils, conscious of the attack being made upon the problems of education, became critical of the teaching in the more traditional areas of their work and talked freely about the "autocrats" in the faculty. The more harmful aspect, however, was in the confusion in the minds of pupils, born of the confusion in the minds of many teachers in the school regarding the purposes of the program and the share which the whole school might have in its undertaking.

*Values Discovered.* Within the experimental groups, however, the closer association between pupils and teachers led to increasingly valuable insights among some teachers into the interests and concerns of young people. Many of the young people involved began to consider the purposes of their education with a new seriousness and to become critical of the work undertaken in the experimental class. The sense of responsibility for building a three-year program for the group as a whole was reflected in the earnestness with which the majority of the first pupils involved in the experiment regarded the activities of the class.

### *Approach to Curriculum*

The approach to the experimental curriculum was left to the discretion of the principal in each building and to the teachers and pupils involved. At first there was only slight departure from the course of study in world history set up in the tenth grade. With units chosen in what might be termed the "Culture-Epoch Approach," most classes attacked the problem of reconstruction of the curriculum by using literature and history to illuminate the story of the development of the race. Such fusion, it will be recalled, was characteristic of experimentation already going on. The direct approach, which encourages students to explore their own social environment and to interpret the present in the light of the past, although such an approach had been tried out in limited groups, was used sparingly, at first, because of the difficulties of organization and the lack of teaching materials.

While some teachers and pupils were experimenting in the use of immediate problems of living as a basis for curriculum building, most teachers were correlating history and literature, an approach which was particularly successful in the field of American Life. This interest tended to occupy the junior year in the experimental curriculum, while the senior year was given over in some schools to exploration of the possibilities of deriving important understandings from short unit courses. In one group three six-week units were set up in the field of Health, each unit deriving its material from biology, psychology, and home economics respectively. In another school short explorations were made in such fields as Modern Poetry, English Literature, Public

peaking, Dramatics, Economics, and International Relations. In these units teachers outside of the experimental program came in to plan the materials and carry on much of the work of the class. Although the burden which this responsibility added to the heavy teaching load of these teachers made the plan impractical for general use, nevertheless some important values came from the experience. Teachers and pupils began an exploration of several fields to discover what understandings might be considered essential to the development of every young person. And they began, too, to see that the fields of English and social studies alone were not adequate resources for the enriching of a program which sought to help pupils to make creative adjustments to themselves, to others, and to the world of nature.

From the beginning of the program there was an emphasis upon widening and deepening the interests of the pupils involved. The institution of what was known as a "free Friday" in several of the schools led to a rather feeble attack upon the problem of leisure time. At first boys and girls were encouraged to plan their time for two hours on Friday in terms of their hobbies. Since there was no available laboratory other than the ordinary classroom, the hobbies pursued were limited. Through a lack of imagination on the part of all concerned and through the apparent inability of young people to take serious responsibility for the constructive use of their time, this particular time was less and less devoted to many interests and more and more devoted to reading. Thus began the free or voluntary reading program which has since become an important part of the experimental curriculum in every high school in Denver. In this program as much freedom as possible is given to the pupils in their choice of reading materials. They are free to bring books from home; to take books from the libraries of the city and the school, and from a classroom library collected with the help of the school librarian from the books available in the school. Some classes have built libraries of their own through a fee system by which individual books in varied literary types are purchased instead of a common text. The teacher's part in the reading program is to study the kinds of books which individuals are selecting and to have conferences with each pupil on his reading plans. Such a relationship between



pupils and teacher over a three-year period has given opportunity for the teacher to know the reading tastes of his group and to awaken new interest in reading. Records of voluntary reading have now come to be regarded as one way in which teachers can know the concerns of young people.

A strong interest in vocational adjustment in one school led to the first vocational trek in the Denver Public Schools. In this undertaking, pupils were given an opportunity to go out into the community half of the day during a six-week period in the second semester of their senior year to gather firsthand information about professional and technical work—which included law, medicine, journalism, architecture, X-ray work, teaching, and assisting in a doctor's office—as well as to learn something about salesmanship, printing, and secretarial work. Preparation for and evaluation of the experience led to a realization of how far the schools had yet to go if they were to help pupils to make effective vocational adjustment.

### *Coordination of the Program Within the Schools*

In most schools both teachers responsible for an experimental class were free to work with their pupils during the two hours set aside for the program. This meant that each teacher was free to sit in the classroom of the other or to take part in the discussion. In other schools the experimental teachers carried a regular load of five classes a day, with no attempt made by the principal to provide time for them to plan together. And as teachers were not in the habit of planning together for the experiences of boys and girls except in curriculum committees which were writing courses of study, nobody thought much about it. The pupils in this case were the chief means of keeping teachers in touch with the detailed activities that were going on in the other half of the program. It was not until the lack of coordination and understanding among teachers became a real hindrance to the work that any recognition was made of the need for teacher cooperative planning time in the school day. Fortunately for the Denver study, such excessive lack of coordination as that described above was the exception and not the rule.

### *Coordination of the Program Through the Central Administration of the Schools*

From the first the administrative group arranged meetings at the Administration Building for the exchange of general plans and the setting up of objectives for the schools as a whole. As long as the program involved relatively few pupils and teachers, these meetings were attended by all the cooperating teachers and principals. At the end of two years, however, representative committees, consisting of teachers, principals, and directors, took over the responsibility of policy and program making for the Study as a whole. These committees, working in planning, evaluation, and integration, continued to function, with variations in personnel, through the spring of 1939. Then the present organization, consisting of Committees on Instruction, was formed to take care of all the problems relating to the curriculum of the schools, both experimental and otherwise. One of the tasks of the Senior High School Committee on Instruction for the year 1939-1940 was to make a study of the principles, values, and practices that have grown out of the Eight-Year Study and to consider those most vital to preserve in the continuing curriculum revision of the schools.

### *Early Evaluation*

By 1936, the year that the first class in the experimental program entered college, the Denver schools began taking stock of the formal experiences which they had sought to provide for the pupils involved in the Study. A questionnaire sent out by a central committee disclosed that the pupils in the experimental program had made little change in the pattern of high school constants and electives as compared with other high school pupils, both in Denver and in the United States as a whole. The trend still showed a relatively high number of electives in academic subjects like foreign language and mathematics and relatively few electives in the field of the arts, including industrial, fine, and home arts. Although some progress had been made in bringing the arts into the correlated program of English and social studies through a consideration of the arts of different peoples and nations, practically no attempt had been made to give

pupils rich opportunities for actual participation in these fields. The whole problem of creativeness and imagination in relationship to many different media had not been directly faced, and the teachers and pupils involved in the Study were largely clinging to verbal learnings.

Even within correlated English and social studies classes, where any formal restrictions in content had been completely removed, the old order had prevailed with emphasis still placed largely on subject matter materials instead of on a study of adolescent needs in a democratic society, especially the needs of pupils within a given community.

The old conception that units in certain subject matter fields fitted one for college and for life still tended to dominate the schools so that the pattern of high school experiences for boys and girls who were destined in a large part for college still followed the formal design of mathematics, foreign language, science, history, and English grammar. Freedom from college requirements as such and the chance to build new curriculums seemed to have made little difference in the ability of the school to develop a new program which made a realistic attack upon the problems of the high school pupil. Whatever had been done to free the teachers and pupils from the need of following traditional patterns had not been sufficient to give them, as a group, the courage to embark upon methods and organization which were in some cases very different from accustomed practice. There was a general inability to redefine the tested values of the past in such a way that they could give strength and direction to the new program. The participation of the pupils in planning the work of the experimental program had been only partially successful, largely because teachers did not understand how to share with pupils and how to seize upon the interests and capacities of pupils in such a way that worth-while experiences were planned instead of spasmodic and unrelated units of work.

#### THE CORE CURRICULUM IN DENVER

##### *Beginning of the Core Curriculum*

From the uncertainties and doubts which characterized the first four years of the Study came the impetus to develop a program in

the secondary schools to provide more effectively for the individual interests and needs of pupils of a given community as well as to provide for common concerns of all high school pupils. Renewed emphasis upon the social responsibility of the school and its place in a democratic society influenced the teachers and administrators concerned with the Eight-Year Study in Denver to recognize the importance of including in the curriculum experiences which have as their chief purpose helping pupils:

1. To become socially acceptable and adequate in the home and in social groups.
2. To develop rich living through a broad range of interests and appreciations.
3. To become oriented to the social scene about them and to develop increasing understandings of the democratic way of life.
4. To assume an increasing share in civic action.
5. To become oriented to the economic world, both as producers and as consumers.
6. To have the opportunity of expressing their ideas and feelings verbally and in other media.
7. To develop increasing ability to make choices in the light of consequences.
8. To practice living in a democratic way.

#### *Nature of the Core Curriculum*

The program which has been developed as an attempt to set such purposes in action is known as the core curriculum. It is so named because it represents an attack upon those problems which are relatively common to the young people in the school and because it carries the chief responsibility for guidance, for general testing, and for record keeping. It is that part of the total school program which is planned for the development in boys and girls of the ability to solve common problems and of the power to think together and to carry on the democratic processes of discussion and group decisions.

In practice the core curriculum has not always followed the major purpose for which it was devised and has fallen short of the criteria which were originally set up to help teachers in their planning of the program. Nevertheless, the following cri-

teria<sup>7</sup> are still recognized as valid and have significant contributions to make to any planning for a core curriculum:

1. The program should consist of those experiences which are designed to meet relatively common and recurring problems and interests of young people in a democratic society.

2. The program should provide experiences which give young people the opportunity to develop behavior characteristics significant for individuals living in a democratic society, such as functional information, clear thinking, social sensitivity, appreciation and creativeness, a disposition to participate in the solution of common problems, respect for personality, and the like.

3. The experiences of the program should be organized without regard for conventional subject matter lines, periods, or courses and should cut across subject matter fields.

4. They should be appropriate to the maturity level of the majority of the pupils in the class and should be flexible enough to provide for individual differences.

5. They should lend themselves to cooperative planning among teachers and among pupils and teachers.

6. They should make no specific demands upon pupils for highly technical skills which would necessitate an extensive period of study prior to the attack upon the chosen problems.

7. They should be built around significant and related problems of personal and social living which serve to define the limits of the work and present a challenge to the pupil; there should be a central idea illuminated by the activities carried on.

8. They should not require materials and equipment which are not readily available.

9. They should be chosen in the light of the problems which are significant for young people growing up in a particular community; differences in the responsibility of the school program will emerge from a study of the kind of community which the school serves.

10. They should suggest many leads into new problems and experiences.

<sup>7</sup> For many of these criteria the Denver schools are indebted to the Curriculum Staff of the Eight-Year Study, particularly to Dr. Harold Alberty, Ohio State University, who shared his thinking concerning such criteria with the teachers in the Study.

Scope in the program was determined by the areas of living which were defined by the various schools. Several schools used four areas: Personal Living, Immediate Personal-Social Relationships, Social-Civic Relationships, and Economic Relationships. One school defined five: Orientation, Communication, Home and Family, Consumption of Goods and Services, and Production of Goods and Services. Within such areas were set up units designed to meet the needs of young people in a democratic society. Care was taken to see that during the three-year period emphasis was laid upon every area of living.

Sequence was conceived in several ways. One school set up its core curriculum in the form of predetermined units, not with a view to freezing the program, but in order to give opportunity for discovering the extent to which each unit was suitable to the group to which it had been allocated. Such problems as Maintaining Community Health, Making Wise Selection of Goods and Services, Studying Vocational Opportunities, and Exploring Special Interests were set up arbitrarily in the program by the subjective judgment of teachers, with a view to discovering the best place for such units and the best ways in which the content of the units could be planned and carried forward by teachers and pupils working together.

Another school made a study of the interests of its pupils by means of a questionnaire. Through such data teachers hoped to discover if there were any interests which could be recognized as significant for all young people at a certain grade level and to what extent a curriculum could be built around specific units of work to be required of all young people at each half grade. Although the results were not significant enough to warrant any final decision as to sequence of units, nevertheless they were useful to the core teachers as aids in recognizing the general differences among the young people of the school. For example, in the ninth grade the following relationships in the immediate environment were dominant: Orientation to the New School, Making Friends, Personal Health, and the like. In the tenth and eleventh grades wider social participation was recognized, with greater interest in the problems of the Local Community, the State, and the Nation. In the twelfth grade the greatest interest

centered in Heterosexual Relationships; in Vocations; in Economic Problems, especially Consumer Buying; and in the problems of Marriage and Home Relationships.<sup>8</sup>

In another school, sequence of units was left entirely to the group of teachers and pupils who were constructing their own curriculum. Although lists of units were suggested, no requirements were imposed; although units were allocated tentatively to the various grade levels, none was looked upon as most appropriate to the level mentioned. Such freedom in planning caused both pupils and teachers to realize that each unit should be related to the next if unity in the program was to be maintained. It demanded also that both teachers and pupils should be aware of the broad purposes of the program in order to discover the extent to which their choice of units contributed to the development of the whole.

### *Organization of the Core Curriculum*

In four schools two periods of the school day were set aside for the core as in the old correlated curriculum. In one school, however, three periods were set aside in the sophomore year. As the training of teachers of English and social studies was no longer adequate to meet the demands of the new program, teachers in many fields became workers in the core curriculum: teachers in science, in the fine arts, in home economics, in mathematics, in industrial arts, in commerce, and in oral expression. Some of these teachers became the counseling teachers of the core classes and worked with the same pupils over a period of three years, acting as the coordinators of the great variety of experiences provided for young people in the core curriculum. Others were contributing teachers, representing many different fields, who assisted in the planning and who came into the classroom from time to time to take over the teaching of units. The teacher planning group was made up of both counseling and contributing teachers who helped each other in the organization of learning experiences. Time was provided for meetings

<sup>8</sup> In this connection it is important to realize that this school is one in which only 8 per cent of the graduates go to college.

of the group for two hours once a week. Individuals in the group met more frequently at unscheduled times to consider problems that could not be sufficiently clarified in the brief period allowed for planning in the school week.

In another school no attempt was made to reorganize the method in the existing experimental classes, but a concerted attack was begun upon the curriculum for six classes of incoming X-B pupils.<sup>9</sup> Teachers for these six classes who assumed counseling and full teaching responsibility represented the fields of fine arts, social studies, home economics, English, science, and mathematics. Assisting these teachers in their planning were five teachers from the fields of industrial arts, music, oral expression, and vocational counseling. Four days of each week were spent in the more formal class activities, while the fifth day was as a rule kept free for personal and group conferences, field trips, and cooperative teacher planning. Three consecutive periods of each school day were given over to the work of the core curriculum. Associated with the teacher planning group were pupil representatives, usually a boy and girl from each class, who assisted in the setting up of objectives and in the preparation of materials to be submitted to the six classes. In this intercore council, pupil representatives took much of the responsibility for the exchange of group experiences and for reporting on the success of the class undertakings. A parent council, consisting of a mother and a father from each class, was organized to work with the teachers and pupils in planning certain aspects of the program and in studying the progress of the work.

The recognition of continuous planning as an important part of the core curriculum has led to many different experiments in organization of the school day. The intercore council, mentioned above, experimented with the possibility of releasing pupils from school for one hour out of the weekly fifteen hours spent in the core curriculum to allow teachers and pupil representatives to plan on schooltime. In this way planning with pupils was re-

<sup>9</sup> The group constituted about one-third of the incoming sophomores of the school.



garded as an essential part of teaching, not as something to be relegated to the end of a long day when everyone is weary.<sup>10</sup>

### *Representative Problems in the Core Curriculum*

In order to understand the kinds of experiences which the core curriculum attempts to provide for high school pupils, one must recognize that the program is concerned with a continuous attack upon the problems which are persistent in the lives of adolescents as members of a democratic society. Units developed around such significant problems become the program of studies. Each unit is an organization of experiences, with a beginning, a development, and an end. Each unit has a central idea to which the experiences chosen are related. The problems or areas of activity<sup>11</sup> listed below are those which have been used by all five senior high schools in planning units for the core program. No one high school has attempted to cover them all; but during the last three years of the Study, units in every area have been developed somewhere in the system. No attempt has been made in Denver to allocate these units finally to any grade level. They have implications for sophomores, juniors, and seniors. The emphases of the unit developed to meet the problem depend upon the needs, interests, and capacity of the group of pupils who are concerned, the resources available, and the creative ability of the teacher or teachers who direct the study.

The following problems, arranged according to areas of living, are indicative of the character of the work undertaken in the various core curriculums of Denver:

#### A. Personal Living.

1. Understanding ourselves through:
  - a. Discovering our interests, aptitudes, and powers
  - b. Measuring the extent of our information in important areas of knowledge

<sup>10</sup> Further problems in connection with planning time will be discussed in the consideration of the present general education program and of faculty organizations.

<sup>11</sup> For another list of areas of activity used in building the Denver core curriculum, see pp. 255-258 of Harold Spears' *The Emerging High School Curriculum and Its Direction*.

- c. Analyzing our use of time and effort and planning for more constructive ways of living
  - d. Studying the problems of physical health, with special reference to our own capacity for work, play, and rest
  - e. Studying the problems of mental health and adopting ways of achieving balance and control and seeing the relationship between health and personality
  - f. Becoming aware of our vocational interests and general vocational aptitudes
2. Developing interests and appreciations which we already have and exploring others in such fields as:
    - a. Reading
    - b. Movies
    - c. Radio
    - d. Gardening
    - e. Weaving
    - f. Playing musical instruments
    - g. Painting
    - h. Modeling
    - i. Hiking
    - j. Singing
    - k. Dancing
    - l. Games and sports
    - m. Leather tooling
    - n. Woodwork
    - o. Nature study
    - p. Physical sciences
  3. Developing maturing appreciations of the resources which make life worth living, in:
    - a. The creative expression of others in the fields of plastic-graphic arts, music, drama, literature, and the like
    - b. The world of nature and science
  4. Learning how to make the most of ourselves in appearance, poise, and social adequacy, through emphasis upon health, grooming, cleanliness, order, and fitness
  5. Developing a philosophy of life
- B. Immediate Personal-Social Relationships
1. Orientation to the school through:
    - a. Becoming acquainted with the pupils in the group and with those who are leaders in the student life of the school
    - b. Becoming acquainted with the teachers and administrative group
    - c. Sharing in the responsibilities of school life
    - d. Exploring the educational opportunities of the school for a three-year program

- e. Considering the meaning of education in a democracy
- 2. Exploring the problems of living in a modern family through:
  - a. Determining the responsibilities of every age group in such a relationship
  - b. Identifying the practices of a democratic home
  - c. Considering the economic problems of the home and the budgeting and spending of the family income
  - d. Planning for recreation in the home
  - e. Planning for making a home livable and attractive
  - f. Studying the origins of family standards, traditions, and beliefs
- 3. Studying the problems of human relationship, including:
  - a. Boy-and-girl relationships
  - b. The personal problems of boys
  - c. The personal problems of girls
  - d. The setting up of criteria for the choosing of friends
  - e. The nature and obligations of the small groups to which one belongs
  - f. Preparation for marriage, eugenics, inheritance, the problem of divorce, and the care of children
- 4. Surveying and evaluating activities and resources for recreation of the family or small groups
- C. Social-Civic Relationships
  - 1. Knowing the community through a study of such areas as:
    - a. The history of the city and its racial character
    - b. Government of the city, including taxation, courts, legislation, and the like
    - c. Providing for shelter, food, and water
    - d. Recreation
    - e. Contributions to the life of the city through clubs, societies, churches, and racial groups
    - f. Providing for the cultural growth of the people through libraries, symphony societies, museums, schools, and the like
    - g. Planning for orderliness and beauty
    - h. Protecting property, health, and life through sanitation, fire protection, board of health, hospitals, traffic control, and crime prevention and punishment

2. Orientation to:
  - a. The natural resources of the region through:
    - (1) Knowing their extent and importance
    - (2) Knowing the methods of their conservation
    - (3) Taking part in such conservation
  - b. The human resources of the region through:
    - (1) Knowing the people of the region
    - (2) Studying what makes for human development
    - (3) Assisting in furthering such development
  - c. The cultural resources through:
    - (1) Recognizing the importance of creating and conserving native literature, crafts, music, and the like
    - (2) Learning of the contribution of other nationalities to the culture of the region
3. Orientation to the nation through:
  - a. Understanding and interpreting our American heritage in:
    - (1) Political life
    - (2) Economic life
    - (3) Cultural life
4. Discovering the unique characteristics of American democracy and comparing them with the other methods of political and social organizations of the world, such as those in Germany, Italy, Russia, Japan, England, and the older feudal systems. This would include a study of:
  - a. The documents of democracy
  - b. The lives of our democratic leaders
  - c. The place of minority groups in the nation
5. Facing and attempting to help in the solution of social problems: crime, slums, population shifts, degrading economic inequalities, civic irresponsibility, and the like
6. Gaining some grasp of international relations and what it means to be a citizen of the world, with emphasis upon the current scene
7. Learning how public opinion is formed and the sources of information upon which we tend to rely, through:
  - a. Becoming critical of books, magazines, the press, the radio, moving pictures, visual arts, and other avenues of information

- b. Considering the effect of beliefs and superstitions upon our thinking
- D. Economic Relationships
  - 1. Studying ways in which clothing, shelter, food, water, and power are produced and distributed
  - 2. Recognizing and learning how to deal with consumer problems, such as:
    - a. Installment buying
    - b. Judging the quality of goods (consumer research)
    - c. Advertising
    - d. Developing taste and discrimination in the selection of goods and services
  - 3. Realizing the impact of machine production upon living and the possibilities of improving living conditions under a machine civilization; this includes consideration of such problems as child labor, working hours, mass production, and technological unemployment
  - 4. Studying the conflicting economic systems of the world and the various ways of providing for production and distribution
  - 5. Exploring vocational opportunities in the community and the nation and studying the individual's special abilities and capacities in terms of a vocation
  - 6. Studying the problems of employment in:
    - a. Training for a job
    - b. Applying for a job
    - c. Employer-employee relationships
    - d. Unemployment insurance
    - e. Organizations
    - f. Finding the cultural aspects of vocational life

### *Organizing Units*

In planning any unit around one of the problems that have been presented above, teachers and pupils seek to provide for growth in the behavior characteristics which have been named as the objectives of the program. That is, they attempt to build their program in such a way that:

1. The knowledges sought are functional.

2. The relationships between pupil and teacher exemplify democratic living and increase social adequacy in the group.
3. Work habits and study skills are developed through which the pupil may grow in ability to find materials, organize them, and present them effectively, as well as in ability to plan for wise use of time and energy.
4. Pupils and teachers think critically concerning the problems which they face and become sensitive to the social implications of what they face.
5. In each unit opportunity is given to pupils to express their ideas in many different media.
6. Those attitudes and appreciations are furthered which are consistent with the greatest personal and social development of the individual.

In addition to these continuing emphases there are other so-called "threads of continuity" which run through all three years of the program. Provision is made for wide and general reading, for vocational awareness, for an attack upon the scientific and mathematical aspects of everyday problems, and for use of leisure time.

*Source Units as an Aid in Planning.* The difficulty of organizing teaching units around problems of living, which depend for their consideration upon rich material in many fields, led to the development of source units which could be used by a teacher and his class in planning the work to be undertaken. Thus, although the units followed in the class are prepared by the group concerned, many suggestions as to activities, methods of procedure, bibliographies, kinds of evaluation desirable, and the like are readily available when a source unit in the field has been prepared.<sup>12</sup>

Source units for the Denver program have been built both in the workshops which have been held in Denver during the summers of 1938, 1939, and 1940, and during the school year. One high school has organized its entire faculty in four groups, each representing many subject fields, in order that they may build

<sup>12</sup> For an account of the form of source units and a contrast between source and teaching units, see Harold Spears, *op. cit.*, pp. 258-265.

source units for the use of teachers and pupils in the core curriculum. At present, Denver teachers have access to the following source units:

- Building the Community Through Purposeful Organizations
- Choosing a Mate
- Communication
- Community Life
- Conservation
- Consumer Economics
- Democracy
- Denver as a Community
- Face-to-face Relationships
- Housing
- How Man Is Changing His Environment
- How the Modern Family Provides for Its Material Needs
- How the Modern Family Spends Its Leisure
- Living in the Home
- Making the Home Attractive
- Modern American Life
- Orientation to the School
- Personal Health
- Personal-Social Relations
- Personality Development
- Propaganda
- Recreation
- Responsibility and Authority in the Home
- Safety
- Social-Civic Action
- Social Significance of the Home
- Transportation
- Use of Leisure Time
- Vocations

*Additional Materials.* In addition to the building of source units, studies have been made by individual teachers and by groups of teachers working together in some of the more specific problems of the core curriculum. For example, there are available in some of the high schools materials to assist in such problems as the following:

1. Clear thinking in life situations.
2. Contribution of mathematics to a source unit on the family.
3. Contribution of mathematics to a source unit on orientation.
4. How to read a newspaper.
5. Finding pupil needs through a questionnaire.
6. The role of assumptions in reasoning.
7. The cost of owning a car.
8. Science in the tenth grade.
9. Planning activities for a class.
10. The place of music in the core curriculum.

### *The Teaching Unit and Pupil-Teacher Planning*

The teaching units, which are built to meet the problems and needs of a particular group of pupils, are at their best created through pupil-teacher planning. In this way both pupils and teachers are responsible for the kinds of activities which go on in the class.<sup>13</sup> In this method, so different from a system in which lessons in a textbook are assigned from a set subject matter curriculum, it is important that the problem for investigation be selected by the class as a whole and that each member of the group know why the problem is chosen and what his share in the study is to be. Such a community undertaking usually has proceeded as follows:

#### A. Preliminary planning

1. Teachers and pupils set up the criteria for the selection of a problem.
2. Pupils and teachers list a number of problems suggested by both and consider how well each meets the criteria set up.
3. Teachers and pupils select the problem which seems most significant to the group and consider ways to provide for the interests of the minority.
4. Teachers and pupils set up the objectives which the class as a whole is seeking in the problem; both general and individual outcomes are indicated.

<sup>13</sup> For a further statement of the part of both pupils and teachers in planning the core curriculum, see Harold Spears, *op. cit.*, pp. 265-267.



5. The limits of the problem are set and the various aspects with which the class is to deal are chosen.
  6. Each individual decides upon his own share in the work and plans how he can best contribute to the outcome desired.
- B. Planning for materials to be used and for activities of the class, including the selection of pupil committees
- Teachers and pupils consult source units, field trip schedules, and the catalogues of the visual aid department for possible sources of information and for suggested activities. They talk with librarians and other teachers.
- C. Period of research and study
1. Teachers and pupils attack the problem by means of a variety of activities, among which may be:
    - a. Reading in many kinds of sources; these are chosen from a wide variety of types:
      - (1) Encyclopedias
      - (2) Source books in history, social studies, the arts, literature, science, mathematics, and the like
      - (3) Fiction, including both the novel and the short story
      - (4) Nonfiction, including biography, autobiography, travel, essays, and poetry
      - (5) Pamphlets, such as the *Building America* pamphlets; the publications of the Institute for Propaganda Analysis; pamphlets in consumer economics, science, vocational studies, and the like
      - (6) Magazines, including national publications as well as those prepared especially for high school pupils
      - (7) Newspapers
    - b. Interviewing persons in the school itself and in the community
    - c. Listening to the radio, which provides both factual information through news and talks on pertinent problems and an opportunity to develop appreciations in music, literature, and the fine arts
    - d. Taking field trips into the community
    - e. Using visual aids in the form of slides, moving pictures,

maps, charts, diagrams, models, photographs, cartoons, paintings, sculpture, crafts of all kinds, buildings, and the like

- f. Listening to speakers who are outstanding in their field
  - g. Deliberating and studying by groups of pupils and by individuals in the class
- D. Planning for reports on the information gained and the organization of conclusions reached for presentation to the class as a whole
- E. Presentation of reports and conclusions before the group, in the form of panels, individual reports, a mural, an exhibit of graphs and charts, a series of drawings or paintings, figurines, a moving picture made by the class, and the like
- F. Planning for the evaluation of the unit in the light of the objectives agreed upon in the beginning (Such plans are made at the beginning of the unit as well as when the unit is nearing an end.)
- G. Evaluating the unit of work to discover how far the understandings and outcomes, originally set up by the group in the form of objectives, have been met both for the group and for individuals in the group
- H. A study by the group of possible leads from this unit into the next

Many variations of the above outline may take place as pupils and teachers work together. Some groups have set up pupil-teacher committees to do some of the preliminary planning. Through its parent council one group in the Study has included parents in the planning of the units of work.<sup>14</sup> Other groups have invited parents to share in the evaluation of the units of work, either through parent councils or by requests for written statements on the reports of the class units sent to the home.

*Length of Unit.* The length of the unit depends on many factors. Generally the time spent varies from two to six weeks, but if the group is mature, with clear purposes and considerable energy, the unit may run as long as a semester. For instance, one

<sup>14</sup> For a more detailed account of this parent council, see *Our Education*, a pamphlet published by the pupils in the 1938-1940 core group at East High School, Denver.

XIIB group worked during the entire first term on the problem of developing maturing appreciations of the resources that make life worth living.

*Trends in Pupil-Teacher Planning in Denver.* The use of pupil-teacher planning as a procedure in the Denver schools is spreading in the experimental curriculum. The general trend among teachers in the core curriculum is indicated by the results of a recent questionnaire, summarized in the following table:

*General Trend in Pupil-Teacher Planning  
in Two Denver High Schools*

*Showing Numbers of Teachers Using the Method in 1933 and in 1940*

| Aspects of Planning   | 1933       |      |      | 1940       |      |      |
|---|------------|------|------|------------|------|------|
|   | Not at All | Some | Much | Not at All | Some | Much |
| 1. Selecting a Unit of Study  | 10         | 18   | 4    | 0          | 15   | 17   |
| 2. Planning for Content   | 14         | 12   | 5    | 0          | 15   | 16   |
| 3. Planning for Ways of Attacking the Problem and for Activities of the Class | 3          | 22   | 6    | 1          | 10   | 20   |
| 4. Determining Objectives   | 10         | 13   | 5    | 2          | 13   | 17   |
| 5. Selecting Individual Projects  | 4          | 17   | 8    | 0          | 10   | 22   |
| 6. Selecting, Creating, and Using Evaluation Devices                          | 17         | 8    | 1    | 2          | 21   | 8    |
| Total   | 58         | 90   | 29   | 5          | 84   | 100  |

*Evaluation of Pupil-Teacher Planning.* There is a growing agreement among teachers that pupil-teacher planning is an art which can be practiced with increasing success as pupils become more self-reliant and more used to carrying responsibility for group work, but that too often it is practiced without sufficient recognition of the immaturity of most high school pupils. The opinions which have been expressed by teachers who have used the method differ widely. In one school a questionnaire was used to gather evidence of the reaction of teachers to pupil-teacher planning as a method. The weaknesses of the procedure were listed as follows:

1. It is difficult to get all pupils to help in planning.
2. Lazy pupils grow lazier.
3. Disciplinary problems arise because liberty is given too early; some pupils come to feel that they should do only as they please.
4. Pupils have little idea of real needs.
5. Pupils have too meager a background to select units of work wisely.
6. It is difficult to plan far enough ahead to order films and other visual aids.
7. Teachers are not resourceful enough.
8. There is a lack of materials.
9. Teachers lack a feeling of security.
10. Pupils frequently lack a plan of action in new situations.
11. Time is wasted.

Many of the problems presented here arise from the teacher's misunderstanding of his function in the planning program, which should be conceived as one of leadership and responsible guidance. Problems arise to some degree from a misunderstanding of the learning process upon which pupil-teacher planning rests; namely, that pupils learn more effectively as they share in planning their activities than when they do only what they are told to do by some more experienced leader. Such difficulties cannot be ignored and must be recognized as a real menace to the progress of the cooperative method in education.

Teachers who have used pupil-teacher planning indicated in their answers to a recent questionnaire that this method frequently results in:

1. Encouraging initiative, originality, and independence in pupils.
2. Becoming a means to answering their immediate needs.
3. Offering fine opportunity for guidance.
4. Providing motivation.
5. Making for democratic cooperation and social responsibility.
6. Developing foresight and resourcefulness.
7. Giving a chance for individualization.
8. Developing more interesting people.

9. Teaching a technique for making choices.
10. Encouraging appreciation for the abilities of others and for opportunities within the school.

If such results can grow out of teacher-pupil planning in even a few classes in the high school of Denver, the method is worthy of further trial.

A teacher in another building writes of her experiences in planning with her class as follows:

Pupil-teacher planning puts life into a subject for both the teacher and the students. When we plan the course together, the students realize that they are finding the answers to their own problems and to the problems of their fellows. It is not then just another assignment to be prepared in order to get a grade. . . .

With this method students are conscious that the work meets their needs. An incentive and interest can be carried through the work of the semester. Such interests are difficult to get and hold when the plans are all made by the teacher and the assignments are given to carry out his plans.

### *Evaluation in the Core Curriculum*

As the teachers of the core curriculum assumed increasing responsibility for studying the behavior of pupils, some of the teachers and administrators involved in the study began to reconceive the function of evaluation, not as a measure of end products alone, but as an ongoing process which had as great a part to play in the beginning of a unit of work as at the end. Evaluation which was concerned with discovering the extent of the growth of pupils in many aspects of behavior was also concerned with giving a teacher knowledge about the way in which pupils were behaving prior to their entrance into his class. Knowing his pupils became the chief need of the core teacher, not just to have information to put on the American Council card for the use of colleges, but to have information which could be used in the building of curriculums that would be related to the needs and interests of all boys and girls in the program. In order that the teacher might arrive at as real an understanding as possible of the influences at work in the development of the pupils with whom he was to associate for three years, he began to look with

new interest at the records which came from the elementary and junior high schools and to desire more detailed information concerning the educational history of his pupils. Ratings in aptitude and achievement tests in the present work of pupils took on greater importance when compared with ratings attained by pupils in earlier years. Recordings of special aptitudes, interests, and problems of pupils, both prior to their entrance into the school and during their present school experiences, became increasingly important.

### *The Evolution of a Cumulative Record*

Accordingly, teachers and administrators responsible for the core curriculum attempted to set up more significant records of the young people in the program. Under the leadership of the Department of Research and Curriculum, committees from the Denver Public Schools evolved new cumulative records to be used over the twelve-year period of public school life. A comparison of the brief classification data sheet which was sent to the senior high school from the junior high schools in the fall of 1933 with the cumulative record which is now [1940] in use in the Denver Public Schools from the kindergarten to the twelfth grade reveals how extensive has been the work begun by these committees. Although the cumulative record is just beginning to be a significant part of the educational planning in the schools, it has already been the means of encouraging teachers to hold group discussions concerning the problems and potentialities of hundreds of individual pupils and to record many data for the use of succeeding teachers.

As the cumulative records left the junior high schools in the fall of 1940 to go to the five senior high schools of the city, they carried test data for every pupil in: (1) academic aptitude, at both the sixth and the ninth grade; (2) reading comprehension and reading vocabulary; and (3) English usage and spelling. They carried summary ratings in achievement in subject fields; in intellectual, social, physical, and mechanical aptitudes; in emotional and social adjustment; in health; and in home conditions. Vocational and educational plans were indicated wherever pos-

sible, as well as employment history and mention of special problems, activities, and interests.

As the preparation and use of cumulative records tend to become city-wide, real difficulties arise which threaten their proper utilization. The first difficulty lies in the fact that public schools deal with such large numbers of pupils that the clerical problem of keeping the records up-to-date is a tremendous burden. In addition to this, only a few teachers outside of the counseling program see the connection between what one knows about a pupil and what one plans for him to do in school. Many teachers still believe that they are primarily concerned with keeping subject matter areas inviolate, irrespective of what additional information about pupils tells them of its educational effectiveness. Such difficulties do not seem insurmountable, however, especially as the counseling program is extended to include every pupil in the high school and the data gathered became significant to more and more teachers in their work with pupils.

*Need for Relating Evaluation to the Objectives and Activities of the Program.* One of the greatest problems for teachers in the Eight-Year Study has been to set up real relationships between what goes on in the school program and the chosen objectives of that program. Closely associated with this problem is a second; namely, that of setting up real relationships between the objectives that have been chosen and the evaluation of the program. And yet the whole program is likely to fall apart if there is no connection among the objectives of the school, the experiences of the boys and girls in the classroom, and the evaluation instruments.

Such difficulties may be illustrated by the attempt to try out in the Denver schools in 1936 and 1937 some of the evaluation instruments which were being evolved by the Evaluation Staff of the Eight-Year Study, such as tests of ability to interpret data, scales of beliefs which indicated social attitudes and revealed consistency in thinking, and tests of ability to apply principles and to distinguish facts from assumptions. These were sometimes tried out in classrooms where for the most part the pupils were concerned with correlated programs in English and the social studies which had given chief emphasis to the enriching of a

study of medieval life or the culture of China, with little emphasis upon the problems involved in the tests and a great deal of emphasis upon the picturesque, the romantic, and the artistic. The pupils could see little meaning to the evaluation instruments used in the program; and when the results were discovered, neither teachers nor pupils incorporated them in the building of new experiences which would develop such behavior changes in boys and girls as the tests sought to measure.

This gap between the curriculum and the instruments of evaluation indicates how far many school practices have sometimes been divorced from the objectives with which the Eight-Year Study were concerned. It indicates, too, that unless evaluation instruments are an organic part of the program as a whole they neither test the effectiveness of the experiences of the class nor point the way to new plans and activities. Take, for instance, one objective which has been dominant in the statements of purposes in the Eight-Year Study; namely, the difficult art of helping pupils to think critically. There has generally been too little recognition among teachers of the behavior involved in critical thinking and too little provision for the kinds of activities which should be engaged in by pupils who would learn to use intelligence freely. Pupils have not been given enough opportunity to think through problems in such a way as to set up hypotheses, gather data, distinguish between facts and assumptions, and become sensitive to the character of statements which range from true to false through a five-point gradation. Pupils have not been given enough opportunity to test their consistency and to see the relation of consistency to thinking. They have not been helped sufficiently to see the difference between rationalizing and thinking, and between thinking and wishing. It is not surprising under these circumstances to find that Denver senior high school pupils do not rank high in tests which claim to measure the ability of pupils to think critically about problems.

*Increasing the Significance of Evaluation Instruments in the Core Curriculum.* With the coming of the new core curriculum more careful plans were laid for the use of evaluation instruments, both for gaining information about the pupils involved in the study and for discovering the effectiveness of the units in terms



of pupil growth. This movement is illustrated by the evaluation program which has been followed by the group of six teachers who undertook to work together for the core activities of 250 pupils and whose work has been referred to above. During the first semester of the course all pupils were given the Kefauver-Hand series of tests: Educational Guidance, Student Judgment, Vocational Interest, Recreational, and Social-Civic. In addition, the Cooperative English Test and a test in library skills were given. On the basis of the information gathered from the English, Library, and Vocational Interest Tests, special groups were set up in the first semester to take care of particular pupil needs in these areas. In the third month of the semester the classes were given the Cooperative Social Studies Test and the following evaluation instruments which had been prepared by the Evaluation Staff of the Progressive Education Association: Scale of Beliefs (4.2 and 4.3), the Voluntary Reading Questionnaire (3.3), Social Problems (1.4), and the Interest Index (8.2). The results were used to inform pupils and teachers of the social attitudes of the group and to give a measure of the consistency of their thinking. A direct attack upon the study of social problems was not made, however, until the second half of the junior year, when the classes built units around the social, economic, and cultural problems of European governments. The Voluntary Reading Questionnaire gave some measure of the reading appreciations in the class and aroused further interest in the program of voluntary reading which was carried as a part of the core curriculum for three semesters, with time in school each week for reading and for consultation with teachers about reading plans.

By means of the Interest Index teachers and pupils were able to make graphs which showed just where each pupil's interests lay, whether in academic, verbal, manipulative, or physical areas. On the basis of such information the counselors were able to help pupils choose electives which would be best suited to their talents or would supplement some heretofore undeveloped ability. At the same time the group set up some short unit special interest classes in crafts, speech, music, and the like.

The giving of the Wrightstone Cooperative Test of Social Studies Abilities in the second semester revealed the pupils'

specific needs in organizing material, obtaining facts, interpreting facts, and applying generalizations. On the basis of these needs the pupils who were at that time studying the community as their unit were divided into groups which, as they gathered and worked with materials, gave stress to the particular ability in which the classes were found to be deficient. Emphasis upon these same skills was made in the third semester, when the classes were concerned with studying the cultural backgrounds of the community, making a film on how Denver gets its food supply, and studying consumer economics.

In the fifth semester, when the group was working upon a unit to develop more maturing appreciations of music, drama, painting, and literature, the Nonverbal Art Appreciation Test (3.10) of the Progressive Education Association was used to measure the responsiveness of the class to works of art (painting in this case). During this semester the pupils were given a series of tests to check on their growth during the five semesters which they had been in the school. The tests selected were: the Interest Index, the Cooperative Social Studies Test, the Cooperative English Test, Scale of Beliefs, Social Problems, and the Voluntary Reading Questionnaire.

In preparation for the vocational study which was to be the chief work of the sixth and last semester of the program, pupils were given both the Cleeton Vocational Interest Inventory and the Lufburrow Vocational Interest Locator to provide some of the data to be used as a basis for their choices of occupations during the vocational trek into the community.

In using test data in the counseling of pupils, in the planning of units of work, and in evaluating the results of school experiences, the teachers involved in the Study recognize that such data are only part of the significant information that teachers must gather about pupils. Informal records of conferences, information from check lists, records of reading, movie attendance, radio listening, school activities, membership in outside organizations—all have been regarded as important to any evaluation program.

Nor has the paper-and-pencil testing program in the core curriculum been limited to the use of standard achievement tests

and to tests developed by the Evaluation Staff of the Progressive Education Association. One Denver high school faculty has been concerned with building attitudes tests, check lists, inventory sheets, information tests, and tests on the interpretation of data which have special reference to the units which the classes have been studying. Some of the tests have been built by reorganizing tests of the Evaluation Staff and fitting them to current local problems.

### *Reports to Parents in the Core Curriculum*

Changing conceptions of both curriculum and evaluation have led to changes in the kinds of reports that are sent home to parents. The fact that many parents were quite unfamiliar with the nature of the work carried on in the core program and the fact that the content varied within each semester led to the need of giving parents a written statement of the activities of the class and of the effectiveness of the part which the individual pupil played in those activities. Increased study of young people through tests, through teacher observations, and through more careful recording of activities made it possible for the counseling teachers to send more information home than had seemed possible or necessary in regular subject matter classes. Accordingly, experimentation with reports to the home, which had been begun in 1933 with the first correlated programs, continued with renewed interest through the years in which the core curriculum was developing.

Each school was free to plan its own reports. These varied greatly in form. Some teachers and pupils chose to continue with the report card already in use in the Denver senior high schools, which calls for a mark on the five-point scale: A, B, C, D, and E, interpreted as excellent, good, average, lowest passing mark, and not passing.<sup>15</sup> The majority of the experimental classes began almost at once to plan some form in which more information

<sup>15</sup> This clinging to a letter grade is due to several factors, not the least of which is the continuation of scholarship awards partly on the basis of point averages in school marks. Exception is made only in the case of physical education, for which the record of "passed" or "not passed" is used.

than that supplied by the report card could be sent to parents.

During the years 1935, 1936, 1937, and 1938 the cooperative record booklet referred to above was generally sent home to allow parents to see the comments of pupils and teachers and to write comments themselves. In some schools the cooperative record took the place of the report card and was taken home at least twice a semester. This not only gave parents an opportunity to express their own ideas about their children's education, but also made available to them the class records that were kept. A study of the use of the cooperative record in the Denver high schools, reported in the fall of 1938,<sup>16</sup> showed that the majority of the 17 teachers who replied to a questionnaire favored the use of cooperative records instead of report cards. Of the 244 pupils questioned, 41 per cent preferred the cooperative record and 33 per cent favored the report card. Pupils frequently expressed the desire to have both a report card and the record. Of the 144 parents who responded to the question "Do you get more help from this record than from the usual report card?" 77 per cent answered "yes" and only 8 per cent answered "no."

After the decision in 1938 to give up the cooperative booklet<sup>17</sup> and prepare cooperative records in loose-leaf form, teachers began experimenting with reports to the home in the form of mimeographed letters. These letters gave a detailed description of the following items: (1) the work of the class; (2) teacher and pupil judgments on pupil progress in developing work habits and study skills; (3) teacher-pupil judgments on such behavior characteristics as self-direction, tolerance, cooperation, and the disposition to think through problems; and (4) teacher-pupil judgments of the degree of success of each individual in gaining information about the problems studied. In addition, a space was provided for general comments by teachers, pupils, and parents, in which each had an opportunity to express his own reactions to the report or to give additional information. This mimeographed letter with its detailed information has generally been considered to be the

<sup>16</sup> For the complete report, see *A Study of the Use of a Cooperative Educational Record as an Aid to Curriculum Planning in the High School*, Study Directed and Report Prepared by Guy Fox, Denver Public School, December, 1938.

<sup>17</sup> The bound booklet was felt to be too inflexible.

most satisfactory means of communicating with all the parents of the core pupils. It has given pupils a share in evaluating their own growth and has given parents far better insights into what the schools are attempting to do in their experimental programs. The demand which such letters make upon teacher time, however, has proved excessive, and there is a tendency for some teachers to feel that the results obtained are not in direct proportion to the effort expended. The large numbers of pupils with whom teachers deal seem to make such reports out of the question except for those whom they know in the counseling relationship provided in the core program. In this situation teachers send home extensive reports for only forty pupils whom they meet from two to three hours a day and whom they know in many and varied relationships over a period of years.

As the Eight-Year Study draws to a close, there is a strong move to interpret to the home more adequately the gains made. The usual report card which has been in use in Denver for many years is under fire from teachers who have been working with new forms and who have discovered that a letter grade is a highly unsatisfactory way to indicate the many-faceted growth of boys and girls. Teachers who have urged pupils to assist in the process of evaluation can never be content to return to the old method in which a single letter grade was regarded as the most acceptable means of communicating with the home. One of the high schools of Denver has printed a report card which is a direct outgrowth of experimentation with reports to the home in the core curriculum. It is a check list that includes those characteristics of behavior which have been recognized in the Denver schools as goals for all young people in a democratic society. Emphasis is upon growth and development. Extent of growth is indicated in three ratings: below average, average, and above average. On the other side of the card is a note indicating that the report has been marked by the pupil and teacher in conference. Below the note is a space for teachers and pupils to write in the title of the units that have been covered in the general education program.

Many teachers who have caught glimpses of what can be effected in pupil-teacher-parent relationships through cooperative

record keeping are loath to return to even such an improved report card as that described above. If the spirit of cooperative concern for the education of young people is strong enough, the city-wide system of marks and awards now used as a stimulus to growth will change in the direction of more inclusive and accurate evaluation. This, of course, implies that teachers and administrators, as well as pupils and parents, recognize that cooperative reports are an important enough part of the school program to be given time in the school day and to be related to the overarching purposes of the school.

### *Significance of the Core Curriculum*

The core curriculum has been constantly criticized by local educators and by the public at large. Teachers in the departments from which subject matter for this curriculum has been taken have sometimes felt resentful. Teachers not involved in the experimental program have questioned the assumptions upon which the core curriculum was built: that all the needs of pupils were not being met in the traditional curriculum, that democratic processes were not being generally fostered and tested in the older program, and that, in general, the learning process was not adequately provided for. But in spite of much of the unpopularity of the core program and of the confusion which has existed in the minds of Denver educators as to its importance and purpose, certain values, attitudes, and activities emerge as the result of the direct attack upon the needs and concerns of pupils which develop in relation to the social group to which they belong.

Important to an understanding of the values claimed is the following summary of the means which were employed to effect the purposes of the curriculum:

1. Continuity of teacher and pupil relationship.
2. Greater teacher participation in formulating policies of the program.
3. Elimination of barriers to learning experiences through the attack on problems rather than through reliance upon logical organization of subject matter in isolated courses.
4. Development of core courses based on pupil concerns.
5. Relating school activities to the community.

6. Pupil-teacher planning—emphasizing choice and responsibility.
7. Gathering and using data for guidance by a teacher who knows the student in an intimate class relationship.
8. Using a wide variety of sources of information.
9. Using a wide variety of means of expression—words, art, and music.
10. Teacher-teacher planning.

From such practices have emerged values which the schools of Denver will attempt to foster in the new programs which are growing out of the Eight-Year Study. The values listed below have been recognized by committees of teachers, principals, supervisors, and administrators. It must be understood, however, that there is no unanimity of opinion in this matter among all the educators of Denver and that there are principals and teachers who are skeptical about any program which departs from practices of former years. In the opinion of those who have been most closely associated with the core curriculum, the following valuable attitudes and activities have developed:

### *In Philosophy*

Recognizing that the function of the school is to become a laboratory for testing and improving the democratic way of life and to give each individual the opportunity to develop to his fullest capacity.

### *In Planning*

1. Increasing personal responsibility of teachers and pupils for the quality of high school experiences.
2. Contributing by both teachers and pupils to the planning of a program.
3. Assisting pupils to learn how to make choices in the light of experience.
4. Increasing self-activity and independence of pupils and teachers.

### *In the Curriculum*

1. Functioning of the school as a testing ground for the democratic way of life through giving pupils and teachers an

opportunity to participate in the solution of common problems.

2. Building educational programs in terms of the needs, capacities, and interests of individual pupils.
3. Building educational programs in terms of the subculture of each school community and recognizing that a different culture demands a different kind of education.
4. Giving pupils an opportunity to participate in the arts in ways which are related to the important activities of the school.
5. Gaining knowledge as a means of enhancing present living and building for the future.
6. Providing experiences which have not been available in the more traditional curriculum.
7. Sharing learning experiences by teachers and pupils.

#### *In Evaluation*

1. Recognizing evaluation as a continuous process.
2. Keeping more significant records of pupil characteristics and pupil growth.
3. Emphasizing self-evaluation as a factor in growth.
4. Pooling the knowledge and experience of many teachers concerning individual pupils and using that knowledge in counseling and planning.

#### *In Functional Guidance*

1. Giving classroom teachers general guidance responsibilities for all pupils and specific guidance responsibilities for a few pupils with whom they are associated over a period of years.
2. Making provision for teachers and parents to work co-operatively for the development of pupils.
3. Helping teachers to understand the growth and development of adolescents and to discover ways in which the school can further desirable changes in behavior.

#### *In Supervision*

1. Recognizing supervision as a service which carries the responsibility of stimulating the imagination of teachers in-



stead of providing them with fixed plans of action.

2. Encouraging supervisors to recognize that the teacher, as the one who works directly with pupils, occupies a central position in any educational process and that upon his abilities, imagination, and liberated energies depends the success of any classroom procedure.

### *In Administration*

1. Using administration not as an end in itself but as the means of furthering the learning process among pupils.
2. Recognizing that administrative devices for the facilitation of cooperative planning, for the keeping of records, and for the reorganization of old and the creation of new school experiences are indispensable to the program.

### OTHER CURRICULUM DEVELOPMENTS AND CLASSROOM PRACTICES OUTSIDE OF THE CORE CURRICULUM

#### *Courses Closely Associated with the Core Curriculum*

When we consider the development in curriculum outside of the core, it is important to realize that, while the philosophy of the core curriculum has influenced patterns in science, social studies, home economics, fine arts, mathematics, vocational courses, and other special fields, many of the courses which were developed in Denver prior to the Eight-Year Study have themselves contributed materials and ideas to that study. Such is a course in homemaking and child care for senior girls which is built around human relationships and is directed toward successful family living, preparation for marriage, home establishment and management, and parenthood. Not only has this course offered much material for the building of core units on home and family relationships, but it has also turned over to the core curriculum much of its materials in vocational guidance, extensive personality study, consumer information, and the general study of social trends. Another course which has contributed much to the core curriculum is one in applied economics for boys. For the past sixteen years successive classes of boys have met to

discuss the problems which they faced in everyday living, such as the selection and care of clothing, grooming, the selection and preparation of foods, and social conduct. In the last eight years the boys have been concerned with three additional problems: (1) understanding themselves, physically, mentally, and emotionally; (2) setting up desirable relationships with others; and (3) preparing for marriage. From this elective course have been derived such teaching units in the core curriculum as Normal Diets and Diets for Special Conditions, Clothing Selection, Getting Along with Others, Etiquette, Home Relationships, Boy and Girl Friendships.

In addition to this flow of materials and ideas from the special curriculum to the core, the core has influenced the development of new special courses in the elective fields of the curriculum. Such is the new clothing-design shop at one of the high schools, responsibility for which is shared by a teacher in the fine arts and one in home economics who had first worked together in a core unit on Personal Appearance. The course is offered as a semester elective for senior girls and deals with individual problems of grooming and the problem of selecting colors, textures, and patterns in terms of an inventory of the personal traits of each girl. The course was first offered to only one class; when it was offered in the next semester, the enrollment increased so greatly that four classes were formed.

Another semester course known as "Human Relations" is an outgrowth of interest developed in a psychology unit presented in the core curriculum. Through wide reading, the making of case studies, and consultation with psychiatrists, the pupils interpret certain aspects of human behavior and gain insights into the problems of individual development.

*Emphasis on the Arts.* In one core course three weeks spent in exploring special interest fields, such as crafts,<sup>18</sup> games, dancing, painting, drawing, and clay modeling, produced such an enthusiasm for creative manual activities that during the next year new semester courses were offered to meet the demand. In this high school and in others, such exploration of special

<sup>18</sup> Craftwork has generally included jewelry making, leatherwork, weaving; working in wood, copper, German silver, and the like.

interests had led to increased enrollment in home economics, in industrial arts, in machine shop, and in mechanical drawing. Such increasing demands upon the time of arts teachers have created a new problem in teacher time. Frequently teachers in the arts are so busy with their own increased numbers of pupils that they do not have time to plan with the core curriculum teachers for ways of arousing new interest in the next incoming class of pupils nor to participate in the teaching.

Closely associated with the developing core curriculum is the open laboratory in the arts which is set up to meet the needs of pupils who are not necessarily "talented," or who have not time to take a semester course. Pupils who wish to make class contributions in some form other than writing find the art laboratory a welcome resource. In addition to opening a general laboratory for the needs of many different kinds of pupils, new classes have been formed in commercial art, stage design, drawing, painting, and art expression in many media for advanced students.

As music and the graphic-plastic arts have been given a larger place in the core curriculum, classes in art and music appreciation have tended to disappear from the elective curriculum of the schools. In place of these rather academic courses, which were largely composed of listening, looking, and reading, are courses which emphasize participation as an important aspect of appreciation. Choirs, orchestras, bands, and glee clubs have increased in the Denver high schools. An all-city orchestra provides recruits for the Junior Symphony of the Civic Symphony Society of Denver.

Meetings of representative teachers in the arts in Denver (language, physical, industrial, plastic-graphic, home, music, and dramatics) resulted in better understandings of the contributions which the arts make to the development of boys and girls and in a determination among some members of the teaching corps to encourage participation in various art forms by all young people in the schools.

*Changing the Industrial Arts Program.* The industrial arts program has developed in three general directions:

First, opportunities are being given more and more to individual pupils to develop skills and understandings which will

add to leisure-time resources. This is especially true of crafts, woodwork, and general metals.

Second, classes in general education are being provided with materials from the industrial arts, the understanding of which is important for everyday living, such as interpreting graphic language, using electrical appliances, making general repairs around a home, painting, and constructing in wood.

Third, vocational courses are being furthered which will train young people in such jobs as cabinet making, drafting, plan reading, automotive maintenance, printing, and machine shop.

An illustration of the adjustment of the program in the Automotive Department of one high school to meet both general and special needs of pupils is found in the following statement of its purpose and organization:

The purpose of this department is to care for three different kinds of pupil needs; namely, general information, more specific understandings, and technical training. These are cared for:

1. In short unit courses to acquaint students with the knowledges necessary to intelligent ownership and operation of an automobile.
2. In a semester course of a semitechnical nature covering materials offered in unit one, but continuing with trade requirements and information essential to minor adjustments and repairs on automobiles.
3. In a longer trade preparatory course of several semesters, designed to prepare students for entrance into some phase of the automotive maintenance occupation. Opportunities are offered in this division for specialization in any of the following seven divisions of the trade:
  - a. Body and fender.
  - b. Automotive electricity.
  - c. Battery repair and building.
  - d. Radiator repairing.
  - e. Brake specialty.
  - f. General automotive repairing.
  - g. Toolroom and parts service.

*Increasing Scope of the Home Economics Program.* Changes in the kinds of experiences provided in the Home Economics Departments of the Denver Public Schools have been widely in-

fluenced since 1929 by pupil-teacher planning and by efforts to make the curriculum functional in the lives of girls. In the Denver high school which sends only 8 per cent of its graduates to college, many new courses have vocational purposes. A class in special services provides training for household assistants and waitresses. Another class, which is associated with a course in "Feeding the Family," gives junior and senior girls experiences in home hygiene and the care of the sick. The girls work two hours a week under the direction of a nurse, who, under the sponsorship of a local woman's organization, has worked full-time at the high school since 1935. For reference the class uses the Red Cross book entitled *Home Hygiene and Care of the Sick*. The course deals with such problems as:

1. Personal health and hygiene.
2. Healthful home environment.
3. Healthful community environment.
4. Babies and their care.
5. Care of older children—preschool and school.
6. Indications of sickness.
7. Equipment and care of the sickroom.
8. Baths and making the occupied bed.
9. Sickroom appliances and procedures.
10. Applications of heat and counterirritants.
11. Medicines and other remedies.
12. Feeding the sick.
13. The home attendant and her daily routine.
14. Care of patients with communicable diseases.
15. Special points in the care of the convalescent, the chronic, and the aged.
16. Common ailments and emergencies.

A teacher giving an account of the course writes:

A number of girls who have taken the course in former years have returned with their babies to show them and to tell how much this course meant at this important time. All expressed their lack of fear during pregnancy and childbirth. Most of the students wish they had had more time in the home hygiene course so that they could have had more practice in the skills which they learned there. They also felt that it would have been invaluable to have had more time for questions and answers and for discussion of problems.

The nurse in this school also gives weekly instruction in personal health and hygiene for X-A girls. This program is a cooperative undertaking between the Physical Education and Health Service Departments. The subjects discussed include nutrition, cleanliness, properly balanced meals, mental health, social health, physical health, spiritual health, and first aid.

In addition to counseling with hundreds of individual pupils, the nurse gives talks and demonstrations in many classes on such subjects as first aid, safety in home and school, colds, communicable diseases, duties of a school nurse, nutrition, personality and health, health and its importance in marriage, and social diseases.

The school nurse not only cooperates with the Home Economics Department in the home hygiene course, but also shares responsibility for a course which trains assistants to doctors and dentists. Pupils for the course are chosen because of their commercial and scientific training and their personal qualifications. The study of bacteriology included in the work is directed by a teacher of bacteriology from the Opportunity School. A dental assistant gives instruction in the duties of her work and discusses the necessary qualifications. The school nurse teaches medical technology, anatomy, physiology, sanitation, and methods of sterilization. This training course is offered one hour a day for a semester.

*The Changing Science Curriculum.* Changes in the science curriculum have been in the direction of more functional experiences and of providing an increasing number of electives. At clinic meetings of representative science teachers the three following lines of approach were offered for consideration:

1. Keep the science courses as now organized, making general education in the science the objective of the first semester. In the second semester divide the students into two groups—those who wish more socialized training and those who desire general education.

2. Offer a general course for one year, followed by special subjects.

3. Offer courses which differ from the beginning course and place students in the proper course through adequate counseling.

Experimentation in Denver has been along the lines suggested in the first approach. In two high schools the course in chemistry offers general fundamentals in chemistry for the first semester; for the second, pupils are given the opportunity of choosing: (1) a more specialized college preparatory course, or (2) a course called "Practical Chemistry," which involves a consideration of consumer problems in the field and the application of chemistry to everyday problems of living.<sup>19</sup> In both high schools more pupils elect the practical or consumer chemistry.

In one high school a broad field course in science was attempted in 1938. Materials from chemistry, physics, biology, and economics provided the content, which was organized by a committee from the Science Department. The emphasis upon practical problems and upon such activities as photography and making cosmetics and soaps disqualified it as a college preparatory course in the eyes of many of the faculty. However, since it was designed to meet the needs of those who were not planning to go into professional schools, others of the science faculty endorsed it. But there was never a wholehearted support of the plan, and at the end of a year the course was discontinued even though it had brought a 20 per cent increase in the enrollment in the department.

Biology courses are undergoing some changes. In one high school the second semester of biology is being divided into three possible electives: botany, zoology, and physiology—an interesting reversal of the point of view which brought forth the biology course as a broad attack upon important problems in the field. In other schools the biology course is becoming more concerned with the interpretation of the social problems with which biological sciences deal, such as heredity, eugenics, disease, sanitation, and sex education.

In recent years field trips have come to play an increasingly important part in the science curriculum, particularly as teachers become more aware of the importance of direct experience in learning. A Denver high school science teacher has prepared

<sup>19</sup> One course outline suggests three divisions: (1) chemistry of the individual, (2) chemistry of the community and nation, and (3) chemistry involved in hobbies and vocations.

the following statement of the place of field trips in the science program of her school:

Generally, there have been three main purposes motivating field trips: (1) to illustrate and give emphasis to the facts of science developed in the classroom, (2) to become acquainted with the resources of Denver, (3) to make contacts with business or professional men and women. The unit on earth products in the course combining geology and astronomy provided the occasion for several trips illustrating the three objectives mentioned. The class studied the rocks common to the Denver area, together with the processes which have led to their disintegration. This involved the study of clay and the changes by which it has been produced from feldspar. Students read widely on various clay products; a committee inspected clay pits near Golden. Then it was proposed that the class visit the Broadmoor Pottery to see the processes involved in one specific clay product. The group discussed and listed the phases of the pottery process it desired to see. This list, with a note of introduction, was given to one boy, who made arrangements with the proprietor as to date, hour, numbers, and other details of the trip. This same chairman was conductor of the trip, being spokesman for the group in asking questions. He kept the time, thanked the manager, and directed safe conduct back to school. This chairman wrote a note to the pottery firm expressing thanks for the courtesy of the visit. The following day there was a class discussion on the topics of the processes seen.

Later a volunteer committee visited the Coors Pottery in Golden and saw many more phases of pottery making. These facts were embodied in a report to the class.

Some field trips are made by entire classes, others by specially chosen small committees, depending upon the nature of the topic being studied and the appropriateness of the place to be visited.

The University of Denver has always been gracious in welcoming science groups to its laboratories, where students have been shown valuable exhibits in the fields of anthropology and comparative anatomy.

Father Forstall of Regis College has devoted much time to showing and explaining the seismograph to entire classes or small committees.

Often the most helpful trips have been to seemingly unimportant, out-of-the-way places, and students have been astonished later to learn the wealth of information to be gained from studying understandingly in such common places as the bed of Cherry Creek, the clay pits near the Platte River, or a brickyard.



*The Changing Social Studies Curriculum.* The emphases in core curriculum have brought about many changes in the social studies curriculum. Semester courses in ancient civilizations, world history, American democracy, modern European history, the history of the West, modern social problems, American history, and world relations are scheduled in the senior high school program. During the Denver Summer Workshop of 1938, a group of social studies teachers in one high school planned a course in "American Heritage" which would approach the history of this country through problems rather than through chronology. Although the course was adopted by the Social Studies Department to take the place of the chronological method formerly used, enthusiasm for the new course did not transfer to the members of the department who had not attended the workshop.

The conception of American heritage which emerged from the workshop has been taken over by the core and general education programs, where a curriculum concerned with problem solving is being developed. This means that the social studies teachers and the teachers of the general education and core curriculums must come to some agreement on what constitutes the province of each in dealing with American life. Meetings are being held in some schools as this report is being written [1940], in order to clarify the distinctions between general and special education in the field of the social studies, so that overlapping of function and purposes may be recognized and needless repetition of classroom experiences may be eliminated.

The following account of the methods of teaching world history in 1926 and in 1940 in the Social Studies Department at one Denver high school indicates some of the changes which came about in classroom practice in fourteen years:

Since it is difficult to give the dates when changes in teaching methods take place and since changes come about so gradually, 1926 and the present have been chosen as points of comparison in the methods of teaching history in one high school.

In 1926 each student had his own textbook, which had been adopted by the curriculum committee. Very few reference books were

used. Sets of outline maps were also bought by each student and were completed as the units were studied. At the close of each unit one of the teachers in the department made a test which was mimeographed and given to each class on that grade level on the same day. At the close of the semester, printed tests were sent from the Administration Building to each teacher to be used as semester tests. The graded papers and results were sent back to the Administration Building, where results were compiled for all schools in the city. These were reported back to every building so that each teacher could learn of the success or failure of his students. Current events were taught from newspapers as the teacher could find time to use them and still complete the unit at the appointed time. Perhaps it should have been stated at the beginning that there was a very definite course and outline of work for each class.

Two descriptions of what took place in a World History I class during the last two semesters may give a picture of methods being used today. In September the invasion of Poland by Hitler had just taken place at the opening of school. The teacher asked members of the class what they wished to study in world history that semester. Almost all students replied that they wanted to know how Hitler had arrived in his present position. After further discussion with the class, the Versailles Treaty was decided upon as a starting point. This was followed by a study of Germany just before the World War up to the time of the Munich Pact. The next unit was the Russian Empire and Soviet Union, followed by one on the development of democracy in Great Britain from the Magna Charta to the present.

At the beginning of the present semester, again the question of what to study in world history was raised. A number of students suggested that they would like a quick review of ancient and medieval history before going on with the study of modern history. The class voted on the matter and decided to do this. At the close of the unit on ancient peoples, the usual test on information was given. Then came the question of whether the students were getting the most benefit out of their work and whether the next unit on the Middle Ages could be planned to help them more. The result was a list of desired skills, appreciations, attitudes, and understandings which each student marked in evaluating the last unit studied. It was discovered that better use of the library and ability to speak before a group were the chief needs felt by the pupils. As a result, the plan for the next unit included a lesson by the librarian on the use of the library and a visit by each student to the library to use the card catalogue and the *Readers' Guide*

for finding reference material. Reports were dramatized in a town meeting, the speakers being chosen by lot, with the officers presiding. At the close of the reports, questions were asked of the speakers and corrections made by other members of the class. The following day was given to voluntary reports by students who were not fortunate enough to be one of the speakers but felt that they had contributions to make. In preparation for the test a list of words to identify in the unit was made by the members of the class. At the close of the semester the list of needs will again be marked to measure any gain made during the study of the later units.

Current events are studied by means of a weekly newspaper subscribed to by the students. A newspaper committee decides each week how the class shall report on the paper.

These changes in the methods of the teaching of history at one high school are no doubt the result of the experimental work in the Progressive Education which has been carried on during the past eight years. Teachers who had no active part in the experiment were influenced by its philosophy as they came in frequent contact with specialists in this work and read articles in the professional magazines concerning it.

*Changes Within the English Curriculum.* In 1939 the senior English curriculum committee for the Denver Public Schools made recommendations for revision of the planned experiences in English so that they might be sufficiently broad to fit into many different kinds of organization, including both core and general education classes and special courses offered through the department. The trend is toward offering short unit courses in the tenth grade to meet particular needs of individual pupils in word study, grammar, and reading as those needs are made clear in the testing program that is carried on in general education classes. Also, greater variety in courses is offered in the two upper grades: commercial English, newswriting, creative writing, fundamentals of speech, everyday English, and college preparatory English. As in the case of social studies teachers, English teachers are meeting with general education and core teachers to determine the responsibilities which each carries in the total program of the school.

*Changes in the Mathematics Curriculum.* Changes that have appeared in the mathematics curriculum indicate a concern for

the special needs of pupils. These have not been achieved by extensive reorganization within the field of geometry or algebra. Instead, the content of geometry, trigonometry, and algebra has been changed through deleting certain obsolete materials and adding those which are more modern and useful. Newer methods of organization have emerged in courses built to meet special concerns of the boys and girls in high school. Such a course is "Practical Mathematics," which is summarized by a Denver teacher as follows:

The first semester has usually been a review of the form fundamentals, with drill, speed tests, and the like, with special reference to work with small fractions and decimals. Reasoning problems that lie within the experience of the pupils are taken up, as well as practical measurements with rule and tape measure and the rudiments of percentage. The second semester's work is made up of a study of problems in household budgeting, saving money, wise spending, investments, installment buying, taxes, and insurance. In so far as possible, the work applies to conditions here in Denver.

The greatest difficulties in the course lie in the fact that every class in Practical Mathematics I contains pupils from Grades IX-B to XII-A and every class in Practical Mathematics II contains pupils from Grades IX-A to XII-A. Their I.Q.'s range from about 60 to 140.

Other such courses are arithmetic review for seniors and advanced arithmetic. One high school which has responsibility for preparing many boys for engineering schools has introduced two new courses, statistical mathematics and field mathematics. A mathematics exhibit has stimulated interest in the subject and indicated the use of mathematics in technical science and invention, as well as in everyday life. There is no direct evidence that the changes in the field of mathematics are the result of the program of the Eight-Year Study in the Denver schools. Yet much of the philosophy of that program is at work in a department which is concerned with adjusting curriculums to meet the needs of young people in the development of varying skills and insights.

THE PRESENT STAGE OF THE PROGRAM IN THE  
SENIOR HIGH SCHOOLS OF DENVER

*The Conservation of Values Growing  
Out of the Eight-Year Study*

One of the problems of the Denver secondary schools has been to know how best to keep and further those values which have emerged from the Eight-Year Study and how to avoid the difficulties and misunderstandings which have developed in an atmosphere of experimentation. Of particular concern to the senior high schools is the discovery of common ground upon which the whole school program can move forward, not just for a few pupils who have elected to be in an experimental curriculum, but for every boy and girl in the schools. In general, there is a desire to keep the three-year relationship between pupils and teachers which was initiated in the Eight-Year Study and to place continuing emphasis upon both group and individual guidance. There is a desire, too, to extend the opportunity for teachers to plan together for the work of a group of pupils and for pupils and parents to share with teachers in the building of curriculums. Teachers who have participated in the Study are generally anxious to retain many of the other practices which characterize the core curriculum, such as the attack upon common problems of young people, the use of many resources which cut across subject matter lines, the setting aside of larger blocks of time in the school day than have been usual, freedom from required textbooks and prescribed courses of study, the keeping of significant records of pupil growth, and continued exploration and practice of democratic living.

*A New Test for the Large  
Senior High School*

As plans are being made to provide all pupils in the senior high schools with the opportunity of sharing in the worth-while aspects of the experimental program, administrators and teachers are faced with problems similar to those which characterized the experimental study, but more difficult of solution because

of the need for working with a far larger number of pupils and teachers. As teachers who have had little or no experience with the core curriculum come into the program, the school must provide means of helping them to find understandings and teaching techniques which will give them a sense of confidence in their new work. It must now be determined whether the senior high schools of Denver can provide for the individual guidance of every boy and girl, carry out a larger program of cooperative teacher planning through which teachers help each other to grow in ability to handle new problems, and build a curriculum which grows and expands continually under the creative activity of pupils and teachers.

### *Present Plans*

The answer to these pressing problems is being sought in a plan to bring every pupil in the senior high school into a general education program which is related to the experimental core curriculum, but which has been modified to meet a situation that is no longer limited to small groups. The program is defined as that part of the total school program which deals with the common life concerns and inescapable problems of young people. It is the only part of the total program which, with the exception of physical education, is at present required of all senior high school pupils in the entire city. Its function is not only to deal directly with some of the common concerns and problems of the young people in the school, but also to guide pupils into those elective courses which will meet their special needs. The counseling teachers in general education guide pupils in building a three-year program which is related to their educational and vocational plans. In this way both pupils who are going to college and pupils who are going directly from high school into a vocation can build a high school program better suited to their interest and needs than was the old program of "constants" in history and English.

The content of the general education program has been conceived very much in the pattern of the units which have been developed in the core curriculum. It retains a similar scope. The determination of sequence rests upon certain broad emphases

at each grade level. Sequence based on the interests and problems growing out of a preceding unit is still being tested out. There is an increasing concern to discover the most satisfactory experiences at each grade level and to set up guiding principles which teachers and pupils can use in selecting units of work.

### *Time Allotment for General Education*

In the first semester, general education occupies 10 hours a week in the 30- to 35-hour program of most of the schools; it occupies a minimum of 5 hours a week for all six semesters that a pupil is in high school.

The problem of time for the program is complicated by the question of college entrance requirements. Now that the agreement with the colleges under the Eight-Year Study is coming to an end, counselors must be guided, as before, by specific unit requirements. With the introduction into the high school program of general education for all pupils, the counselor finds himself faced with the dilemma of overloading a pupil's program, on the one hand, or of depriving him of needed credits, on the other. General education is being so planned and taught as to provide training in skills of organization and communication and insights into personal, social, and economic problems. Such a program could and should take the place of some of the courses which have been recognized as general college entrance requirements.

Whether colleges and universities will come to accept general education as an entrance credit in its own right or whether the experiences provided in the program must be listed under such subject matter titles as social studies and English remains to be seen.

### *Advantages of the Program*

The move in the direction of a more unified general education program for the whole city of Denver has the advantage of bringing the senior high schools together for taking stock of the outcomes of the Eight-Year Study in each school and for sharing further with one another the good practices that have been developed. The hope has been expressed that unity in

the general administrative organization of the program will mean both a growing unity in the purpose and philosophy of the program and a healthy variety in emphases and content, according to the nature of the individuals and the community which each school serves.

Already there is an increasing cooperation between teachers in the general education program and those in the special departments. This is particularly true of the English, Social Studies, and Arts Departments, which have cooperated with general education teachers in defining the experiences in those fields that are appropriate to general education and those which are more special in nature. Much of the resentment and mistrust which accompanied the early experimental program is tending to disappear as teachers in the whole school are learning to work together on common problems of guidance and curriculum.

### *Means for Coordination of the Program*

In every high school the work of coordinating the program is carried largely by coordinating teachers, who are given the responsibility of helping groups of teachers in planning and evaluating the program. They help in the finding and organization of teaching materials, in supplying evaluation materials, in giving some of the tests, in interpreting tests, and in assisting teachers in the keeping and interpreting of the cumulative records. Coordinators keep different groups of teachers informed as to the work being done in general education in the whole building. They assist new teachers and assume with the principals and their administrative staffs some of the leadership in the in-service education of teachers. Time for their work is provided by releasing them from a full teaching load. Some coordinators carry as few as two classes a day; others carry as many as four. The number of coordinators in each high school varies from one to five. In the high school which has five coordinators, the function of the coordinator extends far beyond the work of the general education program and includes responsibility for a vital part in the organization of the entire faculty. The present trend in all of the senior high schools is to reduce the number of teaching hours in the programs of coordinators and to increase the



time in the school day that they can work with other teachers in the total school program.

### *The Future of the Program*

No one in the senior high schools is unaware of the problems that are involved in the program of general education, nor are teachers and administrators blind to the dangers of regimentation of a new sort which may threaten the continued growth and expansion of a program that seeks to use the resources which may be found in the creative activity of teachers and pupils as they plan together for a curriculum. But the program has strength in the opportunity it provides for a new continuity in the experiences of high school pupils. It is a laboratory where pupils may discover their abilities and make plans for a high school program which is built to meet the interests and needs of each individual, where records are kept, and where continuing study of adolescent behavior may go on. It is a laboratory for the cooperative planning of school experiences which have their objectives in the changed behavior of young people. It is the beginning of a program through which values that have been recognized in the experiment may be shared by all teachers and pupils.

■

## DES MOINES HIGH SCHOOLS

DES MOINES, IOWA

Des Moines is a fairly typical Middle Western city, depending on the tall corn of Iowa for its support. It has 159,000 persons, most of whom live in small one-family bungalows which are spread over 56 square miles. Some of the bungalows lack paint, but there are no crowded tenement districts. The public schools enroll 29,000 pupils and the parochial schools 2,700. There are fifty elementary schools, ranging from a school with 1 teacher and 22 pupils to a school with 23 teachers and 731 pupils. Of the six junior high schools the smallest has 14 teachers and 457 pupils, the largest 35 teachers and 1,249 pupils. There are two senior high schools and two junior-senior high schools; the smallest has 51 teachers and 1,852 pupils, the largest 60 teachers and 2,125 pupils. Only a few children come from homes in which a foreign language is spoken. About 4 per cent of the children are Negroes, not segregated in separate schools. There are 949 persons on the school staff, of whom 21 make up the central staff, 9 are secondary school principals, and 20 are principals of elementary schools. Des Moines is noted for its public forums, in which public issues of every sort are discussed by unprecedented numbers of its citizens.

### *Development of the Curriculum*

In the spring of 1933 the Des Moines school system was invited to participate in the Eight-Year Study. Superintendent J. W. Studebaker accepted the invitation and held several meetings with teachers and supervisors representing various subjects to get their ideas of the kind of secondary school curriculum they would set up if they had considerable freedom to experiment. Out of these discussions came a plan for an experimental curriculum which would take half of the student's time and would be an integration of English and social studies, with science and the fine arts brought into the course as opportunities presented

themselves. Theodore Roosevelt High School was selected to develop this course because a large number of its graduates continue their education in college. The original plan called for a study of world civilizations in the tenth grade, our American heritage in the eleventh, and personal and social problems in the twelfth. The tenth and eleventh grade courses included the reading of literature related to the social studies phase of the experimental curriculum, and opportunities to develop skill in oral and written expression. The twelfth grade course was divided into two parts: American Problems and Practical Problems of Living. The first consisted of a problem approach to the study of civics and economics; the second consisted of four short courses of nine weeks each, dealing with personal and family relations, building and financing a home, business practices, and personal problems in English.

The content of the course—readings and expressional activities—was to a large extent mapped out by teachers at the start. However, there was some freedom of choice of reading materials, the grammar taught was connected with the work in hand, and the emphasis in the social studies was placed on great movements, on significant social changes, and on the cultural contributions of various epochs and peoples to the life of man in the world at large and in the United States in particular. There was always the underlying purpose of seeing how these earlier attempts of man to build a satisfactory society for himself and his fellows had affected present-day individuals and society. The two-year continuity and the two periods of integrated work offered greater opportunity for the development of important concepts and generalizations than had a one-year single period course. These concepts or generalizations were the connecting link between the social studies and English, rather than materials related to particular periods or social groups. In the twelfth grade the major emphasis was placed on problem solving. Government, economics, sociology, English, home economics, commerce, industrial arts, and to a more limited extent science, music, and art were drawn upon in the solution of social and personal problems. English skills, such as use of outlines, giving oral reports, writing papers, and carrying on group discussion,

were stressed as necessary to skill in problem solving. An effort was made to use a wide variety of reading materials, and materials and methods of instruction other than books—such as excursions, exhibits, other visual materials, demonstrations, guest speakers, and parties or fairs reconstructing the life of a period.

From the beginning of the experiment, pupil growth in desirable traits was uppermost in the minds of teachers. This is evident in the fact that descriptive reports of progress toward certain desirable abilities, attitudes, and skills were substituted for traditional marks. The cooperating teachers almost immediately recognized that they did not have data adequate for making such reports, and that these objectives would be sought with real earnestness only if they were kept constantly before the minds of all concerned. This created the necessity of evolving new types of classroom procedures, new instruments of evaluation, and new types of records.

While the general content of the course had been determined in advance by the administration and the teachers, some choice as to the aspect of a unit to be studied intensively by individual members of the group was permitted. Since the class as a whole was dependent upon the information and interpretation given by individuals for a complete picture of the subject of study, the contribution of the individual to his group was important and significant. The manner of presentation chosen was, within certain limits, left to the individual. In the culminating activities of a unit, again, each pupil was encouraged to use originality in his presentation of the information, ideas, and appreciations he had derived from the study. Creative writing of various kinds, dramatizations, graphic materials, as well as fact and essay tests, were used. Reports of individual free reading came into use very soon after the beginning of the experiment and helped the teacher to guide the student to a choice of reading suitable to his tastes and maturity.

Thus, from the beginning, the experiment in Theodore Roosevelt High School was concerned with pupil growth in terms of desirable character and personality traits, basic understandings, and effective study habits and skills. Since learning was thought of as an active process in which the individual was concerned

with his own development, provision was made for many and varied activities through which this growth could take place. The statement of objectives, the nature of the reports issued to students and parents, and the attempt through classroom procedures to bring about the pupil's recognition of his responsibility for his own education—all tend to emphasize the idea of pupil development. Much of the real gain that resulted from the early attempts to put the child in the center of the picture were not evident in the first published description of the experimental course.

On the other hand, there was a strong feeling upon the part of teachers and students alike that subject matter was intrinsically important, and that skills should be developed willy-nilly in or out of relation to their immediate need. Parents also held these purposes important and thus intensified the difficulty. They were very sympathetic to the idea of consideration of the individual child; at the same time they were politely insistent upon coverage of subject matter and acquisition of skills.

The most significant difficulty lay in the criteria for the selection of content. As long as the criteria continued to be something other than value in promoting pupil growth, there was conflict.

During the summer of 1936 an attempt was made to put on paper a course of study for a unified curriculum. Due to press of time only the tenth grade course was worked out in detail. The purpose of issuing this bulletin was to provide a record of what had been done, a guide for other teachers who might be called into the experiment, and a point of departure for further experimentation. The objectives dealing with character and personality, work habits, and skills were brought close to subject matter by being listed beside the material which could be used for that purpose. The units were set up in the form of historical problems, predetermined not only in scope but in content and sequence by the teachers, with some pupil modification.

This plan was used for only about a year. The next summer nine Des Moines teachers, including the director of the experiment, attended the Bronxville Workshop. This experience, coupled with their own dissatisfaction with the course they had set

up, led to a new approach. They were greatly influenced in this change in viewpoint by the report of the Science Committee of the Commission on Secondary School Curriculum. This report said: "The purpose of general education is to provide rich and meaningful experiences in basic aspects of living, so directed as to promote the fullest possible realization of personal potentialities and the most effective participation in a democratic society." The basic aspects of living were divided into "personal living, immediate personal-social relationships, social-civic and economic relationships." When attempts were made to build units of work designed to meet these needs in such a way as to develop the kind of personalities that are needed in a changing society, the members of the experimental staff were confronted with all the old difficulties and many new ones. From time to time during that summer, and throughout the following year, they met in conference, sometimes on schooltime but more often outside of school hours, to try to develop satisfactory units of work based on student needs. After much discussion the following areas of living, adapted from the Mississippi Study, were selected as basic for the thinking which should result in a new course. These were:

1. Protecting Life and Health.
2. Earning a Living.
3. Making a Home.
4. Expressing the Religious Impulse.
5. Satisfying the Desire for Beauty and Recreation.
6. Securing an Education.
7. Cooperating in Social and Civic Action.
8. Improving Material Conditions.

The adoption of this basis for planning source units was a great help as it showed how one of the biggest difficulties in applying the "adolescent needs" approach could be overcome.

The "adolescent needs" approach had seemed to mean that the core curriculum should be concerned with the immediate personal-social needs of the adolescent, such as "How to Get Along with One's Family" or "How to Budget One's Allowance and Time." This type of subject matter could not be considered as a substitute for an informational course in English and history.

Therefore, instead of unifying and simplifying the student's high school experience, the experimentation had complicated it by the addition of another course. The experimental course in Roosevelt High School had been given the time ordinarily allotted to English and history. During this time teachers were expected not only to provide opportunities for students to develop the skills and techniques of expression, study, and thinking, but also to see to it that the legal requirements in American history and the desires of a highly trained academic clientele were met. Most of the parents of the boys and girls in this course wanted two things: the standard cultural training they themselves had had in English and history, and whatever was valuable in the new type of education. The source unit broadly conceived seemed to the cooperating teachers as a way to reconcile these two competing demands by expanding the concept of "needs" to include not only those described as immediate-personal but also those which might be characterized as evident future needs.

During the summer workshop at Denver, 1938, fifteen Des Moines teachers worked on two major problems. The first was the determination of the scope of work for each of the three years; the second, the development of "source units." From this summer's work an agreement was reached that, while all eight areas of living would be considered in all grades, the tenth year should give especial attention to satisfying religious impulses; the eleventh year should give particular attention to satisfying the desire for beauty, improving education, cooperating in social and civic action, and improving material conditions. All of these were to be treated from the contemporary problem viewpoint. The American history necessary to understand the background of the problems in each area was to be taught. Suitable reading valuable for an understanding of a problem was to be selected by the English class from past and contemporary writing. Free reading time also was to be provided. Technical English training was to be based on the needs of the particular student or class as work of the unit developed and brought to light their shortcomings. At least half of the time at the workshop was spent on making source units, which the teachers hoped would help solve

their difficulties. When they returned to their own schools, however, they found that units made for general use in many localities were only of slight use in a particular situation. The underlying principles used in developing these units were, nevertheless, of great value and afforded the basis for the next step.

This next step had four phases:

1. Much more attention was paid to orientation than formerly.
2. Real pupil-teacher planning within the general scope of the areas chosen was carried on.
3. The contemporary problems approach was used.
4. A greater emphasis was put on activities other than assigned readings, recitation, and writing as means for gaining and expressing ideas. Such means as guest speakers, interviews, construction of graphs, and art projects were more frequently used.

Hence the most significant change that came about during the entire course of the experiment was the shift from subject matter to pupil needs as the criteria for the selection of content. This change took place during and shortly after the time of the first Bronxville Workshop. While the shift is far from complete and there is still confusion as to a valid interpretation of pupil needs (immediate or deferred, personal or social, cultural or practical), the acceptance of this view points the way to a resolution of one of the major difficulties faced during the experimentation. The idea of an experience or activity curriculum has grown and this philosophy has helped to resolve the conflict. The germs of both the "child-centered school" and the "experience curriculum" were presented in the original planning, but it took a number of years and a somewhat painful struggle to bring them into their present stage of development.

When the Practical Problems of Living phase of the twelfth grade core program was originally planned, the unit of study in Personal Living and Group Relationships was outlined by the supervisor of home economics, and included work taken from courses offered in the Home Economics Department, such as foods, clothing, home administration, and family relationships. The experimental group was made up of both boys and girls,





so it became the task of the teacher to adjust these units which had been used only in girls' classes to mixed groups. The course in its original form was used only a short time and was followed by a period of teacher experimentation with methods, techniques, and content. Gradually a teacher-pupil-parent planning system evolved from this experimentation, and has proved the most satisfactory of all the methods of curriculum development tried during the time this course has been in existence.

Originally the Housing and Home Problems unit of the Practical Problems of Living phase was planned by the industrial arts teacher, who was given the responsibility for this part of the experimental curriculum. This short course has dealt directly with the problems of home ownership and homemaking. From the standpoint of home ownership, the problems investigated and discussed concerned the physical, legal, and financial phases of building or buying a home. Homemaking problems studied in this course dealt with material things and social values necessary in setting up an American home. Within the limits of a series of predetermined units there was a steady growth in pupil-teacher planning, and in student participation in classroom management.

A similar development occurred in the Personal Business Problems unit. A commercial teacher planned the original units and revised them from time to time in the light of teaching experience. Here again, within the boundaries of a predetermined selection and organization of units, pupil participation in the planning and management of classwork increased as the experiment progressed.

Personal problems in English was a fairly conventional review unit in language, taken in a nine weeks' dose. The course provided an opportunity within a somewhat restricted area for individual students to complete such preparation as seemed necessary to meet the requirements in language demanded by the colleges which they were reasonably sure of attending. It was progressive in nature to the extent of taking into account student opinion as to what knowledges and skills should be given attention and of allowing wide freedom of choice in the selection of subjects dealt with in oral or written form.

*Purposes Underlying the Program*

Today the schools of America face a twofold task: (1) the individual must be helped to realize and develop his own potentialities in a changing society; (2) he must be led to assume his share of responsibility for the improvement of that society while not losing sight of the welfare of the individuals who compose it. This double purpose of the schools, the improvement of society and the development of the individual, must be served if this ideal of democratic living is to be approximated. This means that the educational system must attempt to make habitual the thinking and acting that will promote these ideals.

A matter of first importance in the development of the curriculum is the theory of the nature of mind which influences the teacher. It is assumed here that mind consists of the understandings, perspectives, attitudes, habits of thinking, methods of procedure, or backgrounds of information that are really significant in personal living or social adjustment. The development of skills and the acquisition of information are significant and valuable only in so far as they contribute to the process of realizing a purpose, of seeking a goal.

The function of the school, then, is to provide educational situations in which pupils may develop those character and personality traits which are needed by those who participate in truly democratic living. Some of these traits are:

1. Open-mindedness in approaching controversial issues.
2. An intelligent curiosity with respect to personal and public problems.
3. Critical-mindedness in the consideration of facts and opinions.
4. An attitude of social concern relative to conditions which block the growth and enrichment of the personalities of the greater number in our society.
5. Willingness and ability to engage in reflective thinking.
6. Cooperativeness in social thinking and action.
7. Willingness to undertake and carry responsibility in personal and social situations.
8. Self-reliance and self-direction in carrying out well-planned activities.

9. Purposefulness in individual and social projects.
10. Creativeness and imagination in meeting new situations.

### *Administrative Organization*

To begin with, the experimental curriculum was limited to those pupils who expected to enter a college which would accept pupils from the experimental curriculum and who had shown enough promise of ability to warrant considering them as acceptable applicants, and who would agree to continue with the group for three years. The written consent of parents was required for admission to the experimental curriculum, and parents were expected to attend meetings during the year for the purpose of discussing plans and progress of the experiment.

Usually a group of approximately sixty to seventy boys and girls, forming two large classes, has been enrolled in the experimental core curriculum at the beginning of the tenth grade and has continued as a group throughout the three years of the senior high school. Beginning in January, 1937, midyear groups of approximately thirty-five students have entered the experimental course.

The school day begins at 8:30 A.M. and extends through 3:15 P.M. At the beginning of the day is a brief home room period followed by five 65-minute periods. Four periods of work per day are the usual pupil load. The additional period in the school day is devoted to study (four periods per week) and physical education (one period per week). A rich program of extracurricular activities is carried on outside the regular school day.

The following diagram indicates the program carried each year, and the way in which the experimental and regular courses fit together, and the proportionate amount of the course required for the experimental curriculum.

| <i>Grade X</i>     | <i>Grade XI</i>    | <i>Grade XII</i>     |
|--------------------|--------------------|----------------------|
| * Humanities Core: | * Humanities Core: | * Modern American    |
| The World Scene    | The American Scene | Problems             |
| * Humanities Core: | * Humanities Core: | * Practical Problems |
| The World Scene    | The American Scene | of Living            |
| Elective           | Elective           | Elective             |
| Elective           | Elective           | Elective             |

NOTE: The experimental part of the curriculum is starred.

The humanities core is taught by two teachers, working cooperatively, utilizing two periods (consecutive if possible) through two years in grades X and XI.

In Modern American Problems two teachers working with the group during the single period direct the course. The sixty to seventy pupils work as one group in initiating each new unit of work, in giving reports, and in summarizing discussions. The class is divided into smaller groups for research, for discussion and preparation of reports, for remedial work, and for improvement of techniques in which a particular group may need special help. The plan necessarily differs for the smaller January groups.

The Practical Problems of Living phase in grade XII utilizes one period throughout the school year. It is divided into four short courses of nine weeks each, dealing with personal and family relationships, practical housing and home problems, personal business problems, and personal problems in English. These short courses are directed by specialists in the respective fields.

The electives, two courses per year or their equivalent, are selected from the subject offerings which seem to have greatest value in furthering the educational and vocational plans of the pupil. For some pupils the greater freedom in electives is as truly experimental as the core curriculum, since they are much less restricted in their choice than they would be if they were meeting all the specific subject requirements of the colleges they plan to enter.

During the first six years of experimentation with the core curriculum, two teachers were given one period per day, free from contact with pupils, to devote to the planning of work, record keeping, and some aspects of administration, and one of them has served as chairman of the experimental group. These two teachers also cared for the classes of other core curriculum teachers in order that they might have time for planning conferences. Some conference time has been provided by the Board of Education through the use of substitute teachers when curriculum assistants were available. During the school year 1939-1940 four teachers have been allowed one period each daily free from contacts with pupils. One of these has been designated as coordinator of the experimental curriculum. A fifth teacher is

allowed approximately two periods of time daily for work on evaluation.

### *Problems and Difficulties*

All of those who have participated in attempts to discover better ways of doing things through continuous experimentation realize that growing pains frequently accompany the process. To reconstruct one's philosophy of education and classroom techniques, and then to evaluate the results, is no light task.

Among the many problems encountered in the experimentation at Roosevelt was that of determining the criteria for the selection of subject matter or content. Three elements influenced the choice in the early years: (1) an obligation to meet the state requirement of a year's study of American history; (2) an equally strong, if not legal, obligation to develop the language skills and reading abilities ordinarily cared for in the English class; (3) a certain content coverage indicated by the previous selection of a study of world civilizations for the tenth grade course, of "The American Scene" for the eleventh, and of contemporary American problems for the twelfth. Continually in the work with the tenth and eleventh grades there was the strain of moving rapidly enough from unit to unit to cover significant epochs within the prescribed time while providing sufficient opportunities for enrichment and for the development of necessary techniques. The social studies teachers were concerned about getting in the whole sweep of world history and all of the significant developments in American life with particular emphasis on the modern, while the English teachers felt that there were great values to the students to be derived from "living culturally in an epoch" and that time must be taken as the occasion arose for the development of reading skills, research techniques, and facility in oral and written expression in both classrooms. Teachers of both subjects recognized the desirability of helping students to look upon education as an opportunity for personal growth, but time for orientation and later for self-evaluation seemed limited.

The problem of fusing or integrating the work done in the two classes by the two teachers in the tenth and eleventh grades into a unified whole was intensified in the twelfth grade by the

addition of four short unit courses and at least three additional teachers. Another serious problem was the preservation of continuity, secured by two years of planning with or for a class by the same two teachers, in the transition from eleventh to twelfth grade. It appeared that there was not time enough to do everything; and although many and fervent were the discussions, these difficulties did not disappear to any extent until the "student needs" approach to the selection of content was accepted. Since this released the teacher and class from the obligation expressed or implicit in the situation of "covering ground," time pressure was lessened.

Another aspect of this criteria-of-selection problem was the question raised from the beginning as to the validity of selecting reading materials on the basis of their contribution to an understanding of a certain epoch or movement. The English teachers were becoming more and more aware of the desirability of selecting reading material which met student interests and needs, and were concerned with the actual reading difficulties involved in handling the vocabulary and sentence construction in some of the selections which had been chosen primarily from the standpoint of concepts presented.

The attempt at a real integration gave rise also to a serious problem of synchronization, since some periods offered much for the social studies teacher, little for the English, and vice versa. This problem was met with fair success by focusing attention on significant movements and changes rather than on less important detail.

Two other problems of content were: the difficulties, confronted in the tenth and eleventh grades, of arriving at a consideration of modern times early enough to give the contemporary scene its proper emphasis, and the failure to provide enough time in the twelfth grade for a wide variety of stimulating reading materials not necessarily related to the problems being considered. With the lessening of time devoted to the social studies and English core in the twelfth grade and the obligation felt in the one period devoted to it to focus attention upon the economic-civic-sociological aspects of the problems considered, the art aspects of the curriculum, inadequately dealt with in the earlier years, suffered

still further curtailment. Sincere attempts were made to stimulate wide reading and active interest in the recreational and cultural values of art activities, but the time and facilities were very definitely limited.

Cooperating teachers from the beginning have felt that the core course was too limited to give the broad general education desirable for all students. They have encouraged election of the experimental science course which was developing at the same time as the so-called "experimental curriculum," although they should have much preferred its inclusion in the core itself. They have made many attempts to secure cooperation of art teachers in carrying forward projects calling for art activities, but, willing as the art teachers were, the exigencies of the situation seriously hampered such cooperation.

Among the problems confronted in the experimentation were a number which arose out of the fact that education is carried on by human beings and that the personal adjustments necessary for successful planning and the carrying out of plans are not always easy. The individual teacher had several such adjustments to make. He found it necessary to go through a continuous process of revising his philosophy of education, or at least of clarifying it; he found that as a consequence he must develop new criteria for the selection of content, new techniques of working with pupils or an increased emphasis on some techniques already partially in use, and new types of evaluation. He had to teach himself to place more responsibility on the individual child for the establishment of his own goals and for independent work in the achievement of those goals. Students had to be led to consider the teacher's role that of stimulating, guiding, or counseling rather than dictating, directing, judging. He had to see to it that the objectives of tolerance, understanding, and cooperativeness were possible of realization in his classroom. The great amount of time necessary for reading, thinking, planning, and preparing to handle the much wider range of materials and problems involved in the new curriculum was hard to find. So also was the time to evolve new types of records for new types of data. Not inconsiderable was the struggle to overcome the feeling of insecurity resulting from such changes.

Cooperating teachers found additional problems, from the successful solution of which sprang many of the most valuable results of the experiment. They found it essential and possible to develop a mutual understanding of one another's aims, capabilities, and personalities. They developed the willingness and ability to work pleasantly and effectively together. Individual preferences and biases were subordinated to common educational purposes, but at the same time values inherent in individual "flairs" and outstanding abilities were retained. In the course of the discussions through which they arrived at a common philosophy and agreement as to methods of procedure, they had to develop those qualities of tact, courtesy, respect for others, broad outlook, which they were attempting to develop in their pupils.

Some of the questions most frequently brought up in these discussions were as follows:

Which teacher does what?

How much time should be spent on various phases of a unit?

What is most important in a unit?

How shall we handle the unit?

What materials should we use?

Always the time problem loomed large: time for discussion of the questions listed above, time for the discussion of individual students, and time for evolving and using the new types of reports which the changing concept of education demanded.

Probably the most difficult of the problems met in this teacher-teacher relationship was that involving the division of labor, a problem which has increased rather than decreased in perplexity with the adoption of the point of view of teaching pupils rather than subjects. "Is it possible—or desirable—to fuse teachers?" we have asked many times. Possibly the answer, which lack of self-confidence on the part of the individual teachers makes them unwilling to accept, is to have one teacher for all of the core.

In a situation in which the experimentation is set up as only a part of the total school program with a limited number of students and teachers participating, there are sure to arise serious difficulties in securing the understanding and cooperation of non-participating faculty members. A very human and natural tend-



ency which exhibited itself was due to a lack of understanding of the really tremendous amount of time and energy involved in doing experimental work. Teachers seeing other teachers with a so-called "free period," with special materials purchased for their classes, with time to attend meetings in other cities, often failed to realize that the "free period" was insufficient for the uses to which it was put. Some of these uses were: substituting for other teachers while they held planning conferences, arranging and managing a testing schedule, preparing reports of seniors for colleges, evolving and making new kinds of reports for students and parents, conferring with cooperating teachers and with curriculum assistants. These duties, however, seemed to others like special privileges instead of special responsibilities.

Too frequently their attitude was unfriendly, and hasty generalizations uncomplimentary to the whole experiment were based on the scanty evidence of one or two cases in which results were unsatisfactory rather than on the valuable contributions to the life of the whole school made by large numbers of students who were members of the experimental classes. It may be that this attitude was due to a jealousy springing from the assumption that those selected to do experimental work were considered better teachers than those not asked, or that a teacher's desire to do something different implied a reflection on the quality and effectiveness of performance of those not wishing to change. It is quite possible that the teachers concerned in experimentation did not, in the press of their almost overwhelming concern with their own immediate problems, take sufficient time or use enough tact in attempting to secure the sympathetic understanding of other faculty members. Certainly the experience in Roosevelt illustrated again the desirability of a more widespread participation in the process of changing the guiding educational philosophies and resulting procedures even at the cost of time. In that way many other teachers who were willing and eager to contribute to desirable change could have had their share in a more general plan of improvement.

This same "division within the house" created some student problems. It was necessary to make a real effort to prevent the development of the experimental groups into cliques while re-

taining the real values of mutual understanding, friendship, and helpfulness developed through prolonged associations with the same group and teachers. It was also necessary to protect students of the experimental group from too limited contact with the student body by providing them with opportunities for participation in unsegregated home rooms and general school clubs. Another rather difficult situation arose from the fact that students in these classes exhibited a very human tendency to meet the day-by-day requirements of teachers of other subjects, under the pressure of grades, disapproval, and failure, before meeting the more flexible, long-time assignments, motivated by concern for individual growth, in the special experimental curriculum classes.

In public schools the approval of the general public and particularly of the parents of the boys and girls being educated is essential to ultimate success. Changes from the accepted points of view, materials and methods of instruction, must be explained and their adoption supported. In the early days of the experiment such explanations were made in meetings to which parents of prospective students were invited. Later, through further meetings, through reports of progress, and through individual conferences, parents were kept informed as to the progress of their boys and girls in the changing curriculum. To only a limited degree was an attempt made to secure the aid of the parents in modifying educational purposes and procedures. They were asked to bring questions and comments to meetings; they were asked to comment on early reports and to offer suggestions as to the type of reports which were later used. At about the time that it was found desirable to bring students into the planning of their own education, it was also realized that parents might have valuable suggestions to offer and that greater progress might be made through the increased understanding such participation would bring about. In the meantime the primary difficulty encountered was the confusion of purpose between what parents and students considered essential preparation for college (and for any college which any student might desire to attend!) and a course designed to meet real student needs. Since the Eight-Year Study was a college preparatory experiment, real pressure was felt by teachers to prepare students for colleges in spite of

the agreement of colleges to accept recommended students. The result was limited experimentation. Conflicting ideas of the nature of the course and the amount of home study required, due to its more flexible nature, caused confusion. In general, however, very generous and intelligent cooperation was the result of the attempts of teachers and administrators to secure the understanding and cooperation of parents.

The actual administration of an experimental curriculum presented difficult problems. Even with an allotment of two periods per day to the core curriculum and the attempt to keep classes with the same teachers for two years, there was difficulty in bringing arts and science teachers into the planning and actual teaching as often as the cooperating teachers considered desirable. As teachers of the experimental curriculum grew to feel the need of a broader core extended to the whole school, and the creation of several small schools within the school, they encountered seemingly insuperable administrative and financial difficulties.

In the Practical Problems of Living phase of the twelfth grade experimental curriculum, time pressure was a very important problem. A teacher had only nine weeks' time in which to work with pupils in such a field as personal and family relations, or personal business problems. This meant that there was too little time available for the maximum use of pupil-teacher planning as a means of determining pupil needs. Also, long-range measurement of attitudes and thinking ability through use of P.E.A. tests had to be left to teachers in the tenth, eleventh, and twelfth grades, who had much longer contacts with students.

A second unsolved problem in the twelfth grade was inadequate cooperation in unit construction. The American Problems teachers and the Practical Problems of Living teachers worked with the same students in problem areas that were likely to overlap. While some conferences were held to plan the work of the twelfth grade cooperatively, no satisfactory plan of teacher-teacher conferences was evolved.

### *Other Experimental Courses*

*Practical Science.* In the spring of 1937 a practical science course was started at Roosevelt High School. The same type of course

was inaugurated at East High School in the fall of that year. During 1938 and 1939 science teachers at Lincoln and North high schools engaged in similar curriculum experimentation.

Practical science is a one-year course intended for those who need a general knowledge of science of a less technical nature than that offered in the separate sciences, and a course covering more fields of science than are included in a single separate science such as physics or chemistry. The major emphasis is placed upon the pupil and his needs rather than upon subject matter.

Problem materials for the course are drawn from the physical sciences as they relate to everyday life. Biological knowledge is also utilized if needed to understand a problem.

Although practical science is designed to adjust students to their environment, it is also a desirable elective in the college preparatory course since some colleges accept it as a laboratory science providing satisfactory preparation for college. A year of practical science taken in the eleventh grade often creates a desire for further scientific study on the part of students. As a follow-up to this applied science course, the second semester of physics and the first semester of chemistry are recommended.

Some of the purposes of the course are:

1. To help pupils learn correct methods of thinking through the application of science to everyday life.
2. To help pupils learn to use the principles from physics, chemistry, and the other sciences in understanding present-day problems.
3. To teach pupils to use the problem or scientific method of study or research.
4. To develop skill and willingness to work with and for others.
5. To help pupils gain additional knowledge of good physical and mental health and develop proper habits of maintaining them.
6. To help pupils learn to evaluate critically what they hear or read.

Teaching units have been developed in several problem areas. Problems have been selected for their social significance as well as for scientific values. Selection and treatment of content have

been adjusted to the major purpose of the course; namely, to develop the pupil as a rational human being. The following is a list of titles of some of the units which have been used:

- |  |   |
|--|---|
| 1. Measurements in Our Physical World. | 9. Light.                                 |
| 2. Atmosphere, Weather, and Climate.   | 10. Transportation.                       |
| 3. Water and Solution.                 | 11. Cosmetics.                            |
| 4. Matter and Its Properties.          | 12. Communication.                        |
| 5. Heat and Fuels.                     | 13. Foods—Kinds, Uses, How to Preserve.   |
| 6. The Earth.                          | 14. Drugs and Narcotics.                  |
| 7. Astronomy.                          | 15. Beverages—Alcoholic and Nonalcoholic. |
| 8. Materials and Processes.            | 16. Energy in the Home.                   |

*Twelfth Grade Social Studies.* According to a curriculum bulletin of the Department of Social Studies of the Des Moines Public Schools, dated July, 1933, the twelfth grade social studies consisted of a course in civics and economics. The course followed pretty closely the traditional subject matter organization of American government and principles of economics. Basic texts served as main guides in the course. There were some supplementary materials: other texts, pamphlets, and magazines. Evaluation took place mainly in terms of objective fact tests, essay tests, and teacher judgment. Numerical grades were given students periodically. Political, economic, and social problems were taken up as matters incidental to the subject matter organization of the two fields. The main pupil activities were reading, writing, recitation, and discussion. There were a few field trips.

In September, 1935, a Modern American Problems course was started in Roosevelt High School as one phase of the Eight-Year Experiment. Contemporary problems were used as the gateway through which students might engage in a well-motivated study of American government and elementary economics. Some experimentation with attitude and thinking tests took place during the first year of the existence of this course. Numerical grades were replaced by rating sheets, by use of form letters with space for individualized comment, and by symbols designed to show individual progress toward the objectives of the course.

The main objectives for the twelfth grade American Problems course may be summarized under three headings: development of character and personality traits, development of functional understandings, and achievement of skills and techniques. Some of the character and personality traits which the members of the committee held essential to good citizenship in a democracy were: an open mind; an inquiring mind; a critical mind; social concern; self-reliance; self-direction; and traits of responsibility, dependability, and perseverance. Willingness and ability to do reflective thinking were considered of prime importance among the objectives.

The discussions of the committee during the school year 1937-1938 indicated a consensus of opinion in favor of a twelfth grade social studies course which would consist of the study of political problems the first semester and economic problems the second semester. Discussions in 1938-1939 revealed that this view of the American Problems phase was no longer strongly emphasized. By 1939-1940 very few twelfth grade social studies teachers continued to draw the line between political and economic problems. Any American problem might be studied any semester.

The following list indicates the kinds of problems which pupils and teachers selected cooperatively for study during 1939-1940:

What are the vocational prospects of youth in Des Moines?

What are our home problems and what can we do about them?

Is the quality of population becoming inferior? If so, what can be done about it?

How may housing be improved in this community?

What can be done to promote a greater degree of peace between capital and labor?

What can be done to solve the unemployment problem?

How can we avoid economic depressions?

Is democracy superior to its competitors (communism, fascism, Nazism)?

What do I need to know in order not to be taken in by harmful propaganda?

How may we as citizens combat crime?

How may we as consumers get our money's worth?

How may we use our natural resources more wisely?

What can we do to help keep the United States out of war?

This is not a list of problems adopted as a course of study by the twelfth grade social studies teachers. Probably no one teacher's pupils have studied all these problems during the year. This list does not imply an order in which problems were considered, but is merely a composite partial list of units studied in the various twelfth grade classrooms.

Usually pupils and teachers, planning together, selected any combination of problems desired for the year's course. There was one important variation from this procedure. At Roosevelt some of the twelfth grade social studies classes (including the American Problems group of the twelfth grade experimental curriculum) began the year's work with a nine weeks' study of democracy and its competitors. During this period of time numerous threats or menaces to democracy were recognized and listed. Some of these were: war, unemployment, crime, race prejudice, graft and corruption, waste of human resources, waste of natural resources, and inequality and inadequacy of educational opportunity. These threats to democracy listed by a given group of pupils were the problems studied during the remainder of the year. This plan furnished a definite focus for the whole course; namely, the preservation and improvement of democracy.

The most important developments in the twelfth grade social studies in Des Moines during the three-year period 1937-1940 seem to have been the following:

1. The main emphasis of the course shifted from civics and economics to political and economic problems, and then to American problems.
2. Most pupils and teachers no longer use the textbook as a guide in the course. Source units have been developed to serve as reservoirs of material on given problems.
3. There is much more pupil-teacher planning than in 1937.
4. Pupils have access to a greater variety of materials (magazines, pamphlets, and books).
5. Field trips, guest speakers, and interviews with people who have information pertinent to a problem are used more extensively than in 1937.

6. The pupils and teachers of the twelfth grade social studies draw more frequently upon other subject fields for help in gathering pertinent data on problems. They have found art, music, and science experiences helpful in dealing with consumer problems, the problem of leisure and of conservation of natural resources.

7. Experimentation with the use of scales of belief and thinking tests has been taking place.

8. Pupils are encouraged to engage in personal and social action which they may decide should follow the study of a problem.

*Physical Education.* In both junior and senior high schools physical education is a required subject. Each student in senior high school, unless excused because of ill-health or physical defect by a physician, is required to give one period of school-time each week to physical education, and may elect a second period. Junior high school pupils are required to spend two and one-half periods each week in physical education classes. All students are given regular physical examinations by school physicians to determine limitations on activities, with special examinations at the beginning of each season to determine fitness for participation in varsity sports.

Several important trends can be noted in the physical education program of the Des Moines secondary schools: greater emphasis is being placed on student planning and responsibility; there are more corecreational activities; creative dancing is being taught in the junior high schools; more time and effort are being expended in the evaluation of activities.

*Art.* Teachers of secondary school art in Des Moines do not conduct their classes merely for the talented few. They believe that those who build, who design furniture, cars, locomotives, dresses, cooking utensils, etc., are often greater artists than the creator of easel pictures. Furthermore, they believe that stereotyped learning is deadly within a creative field; therefore, the art teacher must work with the individual not only as a separate unit but as a member of a group.

Art students have participated in a great variety of projects: painting murals; experimenting with color; making masks, stage-set designs, and costumes; designing panels for class parties;



decorating plates and platters; block-printing and screen-painting Christmas cards.

Some of the stores of Des Moines cooperate with the art classes. Once a year they hire two or more high school artists to draw for the ads in the newspaper. Twice a semester art students, cooperating with the salesmanship and merchandising students, draw and compose the ads for the school newspaper.

Art exhibits, of work done both by pupils in the school and by artists of the community, are available to students in the school gallery. Art students have opportunities to visit outstanding exhibitions that are brought to the galleries of Des Moines. North High and Roosevelt High sponsored during the last semester of 1939-1940 a joint exhibit at the Fine Arts Association gallery.

Art teachers and students feel that they have a contribution to make to the total life of the school. They have cooperated with numerous departments, but still feel the need for more opportunities to work with other classes and activities of the school.

### *Junior High School Courses*

*Fusion Courses.* In several of the junior high schools fusion courses have been attempted. They were based on the observation that teachers meeting six different classes and a home room each day cannot learn to know pupils well enough to be a very great help to them individually, and that it is difficult for boys and girls of junior high school age to adjust to many different teachers and teaching situations in the course of one school day.

Some of the units developed were: in the seventh grade, Orientation to Junior High School, China, South America, Managing Money, Family Life in the United States, and Transportation; in grade VIII, The Building of America, Movies, Sports, and Building a Home; in grade IX, Know Your City, Taxation, Public Welfare, Recreation, Municipal Government, and Behave Yourself (etiquette).

The Art, Industrial Arts, Music, and Physical Education Departments cooperated in supplying materials, in giving advice and instruction, and in devoting class time to some of the units. Creative writing, spelling, oral expression, and reading were the English activities of the fusion courses. Social studies activities

included: preparation of bibliographies, study of social studies terms, reading social studies materials, oral and written reports, dramatizations, and writing a constitution for the home room. Some of the activities involving numerous subject fields were: planning home room parties, giving assembly programs, budgeting, preparation of charts and graphs, studying taxation, studying the building of a home. Arithmetic did not seem to fit very smoothly into the fusion, so the teachers recommended that it be omitted from the following year's plan.

*General Science.* During the past four years there has been an important shift in the content of the general science course. The subject matter is no longer based upon that which is presented in any one textbook. Supplementary textbooks have been provided in each classroom. The science teachers have agreed upon a tentative outline of science areas and grade placement. These have been tried out in actual classroom practice, with the result that there is a growing conviction on the part of the science teachers that content should be selected for its value in meeting the needs of boys and girls in their various environments. The suggested scope for each grade is flexible enough to allow the pursuance of optional areas of science interest, which makes it possible for schools in different sections of the community to study the areas which will be of most benefit to them.

Other developments in general science teaching are: more adequate time allotment, experimentation with a better-type room, more adequate equipment and materials, more field trips, less emphasis on specialists as general science teachers, and experimentation with newer types of evaluation.

*Home and Child Hygiene.* This is a ninth grade course for girls, designed to increase their ability to preserve their own health, to recognize deviations from normal states of health, to meet simple illnesses and home emergencies with safety and efficiency, and to use simple nursing procedures in the home. The student has an opportunity to develop an understanding of sanitary measures for home and community. The final unit of the course deals with simple principles of infant and child care. Social workers dealing with maternity cases report that the effects of this course are remarkable in the homes they visit.

*Course for Maladjusted Boys.* In the fall of 1939 a West Junior High School teacher began an experiment with a group of maladjusted boys. These students had entered junior high in January, 1939, two to four semesters older than the average new pupil in junior high in Des Moines. A history of failure in elementary school, broken homes, malnutrition, low incomes, and trouble with law enforcements agencies was typical of most of the boys. Intelligence quotients ranged from 68 to 102.

An interest inventory was given. It showed that the dislikes of the group, individually and as a whole, were much stronger than the likes. The boys showed a marked indifference to many items in which normal children of the seventh grade are interested. A reading test was given to find what steps might be taken in remedial reading and what reading material could be used by the group. Individual and group conferences were held to give the boys opportunities to make their interests known.

A personal hobby display composed of examples of the work the teacher liked to do in his spare time aroused some discussion of things the pupils would like to do. Several members of the group asked to make linoleum-block prints. Within two weeks all but four of the boys had made creditable block prints. Some of the subjects were original; others were copied from illustrations found in books in the room. No attempt was made to push the boys into this activity and some of them wasted quite a bit of time. Several of them spent this free time looking at pictures in magazines while the others were making their block prints.

One period a day was allowed for the "activities" described above. The other period was used for discussion of current radio news reports, newspaper headlines, and questions on many other subjects as brought up by the boys. For a month there was some reading material in the room; most of it had been tried on the boys and found not interesting to them or too difficult in vocabulary or concept. Finally, from the boys themselves came the request to have some time set aside for quiet reading. At this time a large number of books from the elementary school was brought into the room. A new reader, *Centerville*, was introduced and used, and other reading and vocabulary building experiences were brought about through taking the class on excursions to see

things in the community in which they showed an interest. Also a remedial reading consultant worked with this group.

When reports to parents came due, each boy agreed to write the teacher a letter reminding him of the things they had done and what they thought he should say about their progress. The response was surprising. Every boy wrote him something. Most of them, through a veil of queer spelling and crude sentence structure, revealed themselves to the teacher more clearly than he had ever seen them before. With these letters, the contents of their test folders, and samples of their block prints, he found the writing of those reports not a task, but a pleasure. Several mothers wrote him interesting and helpful letters in reply.

At the beginning of the second semester the teacher and the principal found a way of providing manual arts facilities for these boys. The major project of this phase of the course was the building of a playhouse for elementary children.

So far as educational objectives are concerned, the teachers believe that these boys have had experiences which will make them better citizens along the following lines:

1. They have improved in their attitude toward organized authority, not because they have found this authority a stern, relentless Nemesis for the evildoer, but because they believe that their teachers are trying to understand them.

2. They are happier in their daily associations in the group and around the school than they were when the class was organized.

3. They have taken part in planning many activities which they felt were important and, to the extent of their capabilities, have carried out some of the plans to a successful conclusion.

4. They have gained a feeling for human life in other parts of the world through their daily discussion of news reports and radio broadcasts and have learned to look for facts to use in interpreting these reports.

5. They have learned to use what resources they have at hand to gain an end without depending on materials seemingly necessary but not furnished through the regular channels.

*Youth Peace League*

During December, 1939, one section of American Problems students at Theodore Roosevelt High School selected and carried on a unit of study entitled "Keeping the United States Out of War." The culminating activity of this unit of work was an invitation to American Problems students in the other high schools to join in the formation of a Youth Peace League. The purpose of this organization was to study the foreign policy of the United States and propagandize on behalf of peace. The cooperation of several community organizations for adults was obtained. By April, 1940, 605 students had expressed their desire to participate as members of the Youth Peace League.

*Election Project*

The Des Moines Public Schools intend to be an integral part of the community life and to carry on activities which bring the future voters, who are the pupils of the school, into as frequent and vital contact with the civic life of the city, state, and nation as can be planned. The school stands ready to alter its curriculum in order that it may utilize opportunities which lend themselves to that purpose. Local, state, and national elections offer a rich opportunity for civic education of a vital and intensely interesting nature.

In 1936 and again in 1938 the schools carried on election projects which afforded most of the high school students and some junior high school students opportunities to study current election civics and then put this knowledge into practice by participating in a city-wide school election which was held on the same day as the local and national elections. Registration of student voters was carried out with materials furnished through the cooperation of the Independent School District and the City of Des Moines. Full-length ballots were prepared for election day. Hundreds of students assumed responsibilities in helping to plan and carry out these projects. A thorough study of the election issues of 1936 and 1938 was an important part of the project.

*Curriculum Committees*

The curriculum is the concern of every member of the instructional staff in the Des Moines schools. The most important

changes and improvements in the curriculum should grow out of the classroom situation and be developed by classroom teachers. To implement this principle, curriculum committees of teachers have been organized in subject areas and at grade levels in which active development is in progress.

As a beginning, committees were appointed by the superintendent, with the aid of supervisory and administrative officials, to attack the immediate problems in their respective areas. These committees, as one of their problems, were asked to work out plans for representation on permanent committees which would provide for rotation of membership and also for continuity of program. The plans necessarily differ widely, since some committees work with areas such as American Problems, involving 13 teachers in 4 different schools, and others in such fields as elementary science, which involves over 100 teachers in more than 40 buildings. Committees in different fields are organized as work is attempted. For example, committees studied dictionary needs for two years before final recommendations for purchase and quota distribution were determined. The dictionary committees then ceased to exist, since the use of the dictionary is the function of all subject fields and departments. Committees in fields such as English, social studies, or primary reading are not dissolved, but continue with rotating personnel. It is the function of continuing committees to study the curriculum practices and instructional materials related to their fields and to recommend changes which should be made to achieve educational results more effectively.

The administrative committee has evolved as the group to which curriculum committees report their conclusions and recommendations. The superintendent is the chairman of the committee, to which he appoints the assistant superintendent, the directors and supervisors who have general responsibilities over wide areas of education, and two or more special subject supervisors. To this committee, usually numbering about nine persons, are added any special supervisors who are directly concerned with any report to be presented. The administrative committee is responsible for considering each report in the light of the entire sweep of education in Des Moines, for returning recommendations to the committees for further study, for suggesting additional proposals,

and for adopting reports and plans as the established program of the schools within the policies approved by the Board of Education.

Exact definitions of the authority and the responsibilities of the curriculum committees and of the administrative committee have not been stated. Their functions have been evolving by expansion of the duties and responsibilities formerly assigned to temporary textbook or curriculum committees. The committees have been working cooperatively, determining many of their policies as the occasion arises. It is believed that out of this cooperative effort a flexible plan may develop which will provide for a growing, changing curriculum based upon successful experience in the classroom.

#### *Utilization of Community Resources*

During the school year 1939-1940 two in-service teacher-training groups concerned with the study and use of community resources have been developing in the Des Moines Public Schools. The Committee on the Utilization of Community Resources in Education has aimed at the systematic classification of community resources of educational value and accessible to schools. Teachers and community representatives have worked together in preparing a handbook which classifies the life and work of Des Moines under various headings, and lists under each heading five types of possible contacts with schools: (1) places to visit, (2) people to interview, (3) printed and visual materials, (4) speakers, and (5) opportunities for participation.

The Voluntary Community Study Project provides an opportunity and stimulus for teachers to broaden their own understanding of the various aspects of living in Des Moines. Small groups of teachers go off every Saturday morning to get better acquainted with people, activities, and places that make up the life of the city. Participation in the project has been purely voluntary. No formal reports or other materials have been suggested or required.

Now that the handbook for classroom use has been prepared by the Committee on the Utilization of Community Resources in Education, two possibilities for continuing this phase of the

in-service teacher-training program arise: (1) that both groups be continued, with one pointing toward the development of techniques in the use of community resources in education and the other toward an enriched understanding of the community by teachers; or (2) that the groups merge into a single cooperative body, composed of teachers and community representatives alike, for the purpose of developing a greater comprehension between school and community and the realization of the objectives of both groups.

### *Educational Conferences*

At the invitation of the Des Moines Public Schools, the Progressive Education Association has cooperated in planning and conducting annual conferences for Des Moines teachers. Since most educational conferences present too many stimuli for real assimilation and application, these conferences have allowed not more than three or four general meetings, in which various aspects of one central theme are discussed by the educational leaders of the country. After each general meeting the membership of the conference is divided into as many as thirty-five discussion groups to examine and criticize the ideas presented and to discuss their application to the local situation. Chairmen selected by the teaching staff preside at these meetings and prepare for them in a series of planning sessions before the conference opens.

### *The Problems Laboratory*

In the summer of 1940 a teachers' workshop, called the Des Moines Problems Laboratory, was sponsored jointly by the Des Moines Public Schools, the Commission on Teacher Education, the Progressive Education Association, and Drake University. The Des Moines Board of Education provided the building, books, supplies, and clerical services, as well as the services of staff members who were already on twelve-month contracts with the Des Moines schools. Three consultants were furnished by the Commission on Teacher Education and the Progressive Education Association. The remaining staff members were paid from tuitions, which were required of all who enrolled. Drake University participated in the planning, managed the recording and



accreditment of work done at the laboratory, served as the business agent, and was represented on the staff of consultants by faculty members of the College of Education.

In this workshop there were a number of unique features which made it possible to obtain valuable results for the school system as a whole. One hundred and twenty-five elementary and secondary teachers and principals from the same school system worked for six weeks with consultants, drawn largely from their own supervisory and administrative staff, on the study and solution of problems which concerned the teachers in their effort to carry on an effective educational program. The problems had been studied during the latter part of the school year to the extent that the Problems Laboratory was able to begin effective group discussions much earlier than is usual in workshops. The entire day was occupied with a balanced program of group discussion, individual study, creative activity in the arts and crafts laboratories, and social recreation.

The benefits of the workshop were readily discernible during the following year. Better understanding and appreciation of each other were evident between the supervisory and administrative staff and the teachers, as well as between teachers of different grade levels. Their attitude "caught on" with many who had not attended the Problems Laboratory and it became possible to plan many cooperative projects for furthering better relations between all teachers and supervisors. Without discounting in the least the contribution made to the improved effectiveness of individual teachers, the outstanding development was this somewhat intangible welding together of the entire personnel of the school staff into a greater unity of feeling and purposes.

Perhaps the greatest proof of value of the Problems Laboratory was the successful planning and carrying through of a second Des Moines Problems Laboratory in 1941, with essentially the same sponsorship as the first one. With the experience gained in the preceding year as an asset, many improvements were possible. A number of teachers from other school systems were admitted. A successful workshop in adult education was carried on for three weeks as one innovation. Two additional staff members who were specialists in the adult education field added materially to the

consultant resources of the entire group. An outstanding instructor in wood carving, who was brought to the workshop at the request of a group of art teachers, proved to be a valuable asset for all. In this second Problems Laboratory 125 Des Moines teachers participated, several of them for the second time, along with 11 adult education teachers and 6 teachers from other school systems. A careful evaluation study indicated that teachers had achieved much of the purpose declared for the workshop. This statement of purpose is quoted as one which epitomizes the aims of both the 1940 and the 1941 Problems Laboratories:

The basic purpose of the 1941 Problems Laboratory is to promote teacher growth and development.

This purpose will be served as each individual has freedom to plan and carry on his own work without pressure or tension in the company of others with somewhat similar experiences under informal conditions.

Some possible dividends may be increased sociability, wider acquaintanceships, better understanding of individuals and of human relationships, a broadened vision of the total school program, the joy which comes from accomplishment, and greater zest for living as one teaches.

## EAGLE ROCK HIGH SCHOOL

LOS ANGELES, CALIFORNIA

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Eagle Rock Junior-Senior High School is situated in the northern section of the City of Los Angeles, California, and is one of the high schools under the jurisdiction of the Los Angeles City Board of Education. Eagle Rock was originally a separate political unit, asking for admission to the metropolitan area as a means of inclusion in water privileges afforded Los Angeles by the Owens Valley Aqueduct. While it has been a part of Los Angeles for sixteen years, it still retains much of its original identity, maintaining its own shopping center, post office, service and social clubs. Within its boundaries are four elementary schools, the junior-senior high school, and the campus of Occidental College, so that its young people may complete their education without leaving the valley. It is, then, a community which keeps a closely knit social consciousness of its own and at the same time is afforded the variety of experience available to large cities.

The school has a campus of 12 acres, including two large playgrounds, one for boys and one for girls, and a well-equipped agriculture center. A double gymnasium affords opportunity for social events as well as for physical education. An auditorium with fairly adequate stage facilities seats 1,200. Classrooms, laboratories, a library of about 7,000 volumes, a cafeteria accommodating 500, shops, and home economics units complete the plan.

Pupils attending Eagle Rock High School come from a district of three sections, more or less sharply marked according to cultural background, standard of living, and security—above average, average, below average. In this last group are a small number of families receiving aid from local, state, or federal funds. A large majority of pupils come from homes owned by their parents. Approximately 75 per cent of the parents can be reached by telephone. The school population is compara-

tively stable, the small transient population consisting mainly of those in the lower income brackets.

Eagle Rock is a slowly but steadily growing community as is evidenced by the growth of the school. At the opening in September, 1927, the enrollment was 399 boys and 394 girls. In 1940 the school has a total enrollment of 1,690, with 71 teachers.

### *Curriculum Reorganization*

Curriculum reorganization began, several years after the school was established, through the desires of two groups of the staff. Two instructors on the eleventh grade level, one in English and one in the social studies, asked that they be given the same group of students, that they hold their classes in adjoining rooms, and that they be given liberty to correlate their work in American history and American literature. A similar request came from two seventh grade teachers. At the close of the first semester both groups wished to continue and to include the home room assignment in the arrangement. At the end of the first year the suggestion was made that music and art experiences could well be included in the correlation and that the two separate class periods be considered as one two-hour schedule. Interest in their project, aided by the encouragement and help given by the Curriculum Division of the Los Angeles City Schools, spread to the whole faculty.

Inclusion in the Eight-Year Study and, at the same time, in the group of California Cooperating Schools, gave freedom from city and state curriculum restrictions and promise of help in problems which had already begun to loom. As thinking and planning progressed, it was realized that understanding and directing of adolescence could be achieved only by long, intimate relationship of teacher and pupil and by much flexibility of program, motivation, and evaluation. The basic course which has evolved is two hours in length, and students remain with the same teacher for two years.

While the gathering of information concerning children is of primary importance to every teacher and is the basis of discussion in grade curriculum committees, as will be explained later, it is this basic course teacher who prepares the cumulative record

folder containing facts about home conditions; physical development; intelligence indexes; individual strengths, weaknesses, aspirations, and desires. These are taken from every available source: interviews with parents, home visits, health records, teacher comments, self-rating charts, anecdotal records, standardized tests, and so forth.

In the earlier days of the study the basic course followed rather closely the regular Los Angeles course of study: American history in the seventh and eighth years, world cultures in the ninth and tenth, and American government in the eleventh and twelfth. It was for the most part a correlation of subjects that naturally grouped themselves around a social science theme—literature, art, and music related to the period of history or country being studied. The principal innovation was with method and motivation. Textbooks and recitations gave way to library references and committee reports. Matters taken from everyday living and of interest to the child took the place of standardized class material.

### *Objectives*

As thinking on objectives crystallized and understanding of child needs deepened, the basic course changed radically. While the social science units have never been entirely replaced, more and more units have been organized with quite different purpose and content from those usually found in a history class. Children entering the school needed to become oriented to a new situation; a class giving a party wanted to know how to do it the right way; growing boys and girls asked about the laws of physical change and well-being; members of a tenth grade group required some vocational information before choosing their upper grade electives; an eleventh grade was dissatisfied with the organization of its student government; students entering college had to know how to bridge the gap. These and many other adolescent needs and interests made it essential for grade committees to change some of the basic course activity from cultural epoch units to an increasing number dealing with social adjustments.

### *Development of the Program*

The six-year organization falls into three cycles: seventh and eighth grades, ninth and tenth grades, and eleventh and twelfth

grades. During the seventh and eighth grade cycle, the chief concern is with strengthening the mastery of the techniques of communications and calculation, and with the discovery of talents and capacities. At the close of the AVIII term, parent, child, and basic course teacher, on the basis of the interest and achievement of the past two years, decide upon the focal points for the next cycle. During the ninth and tenth years, in addition to the basic course and physical education, each pupil may choose one "related elective" (designed to develop, explore, or pursue a major interest, usually vocational) and one "general elective" (any other course which the school offers). During the eleventh and twelfth grade cycle, pupils may choose two "related electives" and one "general elective." A pupil intending to become an engineer, for example, might choose physics and advanced mathematics as "related electives" and drafting as a "general elective." A girl intending to become a nurse might choose biology and dietetics as "related electives" and glee club as a "general elective."

It is not possible in this report to go into detail concerning the changes that have occurred in content and emphasis within the curriculum structure. In every field there has been adjustment and reorganization on the basis of better understanding of child needs and interests, and in the light of the reports of committees on school objectives. New courses have been added: consumer education, family relations, college orientation, and "How to Get a Job" in the senior year; practical physics, business economics, shop bookkeeping, and industrial practice for prospective industrial workers.

The administrative organization of the school has undergone various adjustments as the study progressed. At first the heads of departments, with the administrators, formed a sort of school council. Then, as interest in school objectives superseded interest in subjects, a committee was chosen to clarify each major objective and to direct and evaluate work toward it. There were committees on Skills, Appreciations, Health, Social Responsibility, Critical Thinking, and Vocations. Every teacher still serves on one of these committees. In addition there is a committee for each grade and a coordinator for each two-year cycle, who have major responsibility for planning the work of each year.

The time between 8:00 and 8:45 each morning is reserved for meetings of these committees. The school Administrative Council now consists of the administrators, the coordinators, and three faculty members elected at large.

The school recognizes that there are many problems ahead both those already encountered and many not yet envisioned. They realize that even those for which they have found partial or temporary solution will reassert themselves. Community understanding and cooperation, for example, must be constantly a matter of concern. Teacher planning, for which the period before the start of the student day was originated, has already outgrown its time limit.

Closely allied with this difficulty is that of adjusting teacher load so as to give freedom from heavy class responsibility and thus afford opportunity for creative effort. This has been partially met by transferring the reduced teaching assignments formerly given heads of departments to those engaged in curriculum coordination. This, however, merely evades the question unless some way is found to take care of duties formerly performed by these heads. Experience proves that much official red tape becomes obsolete in these newer procedures and that, by taking thought, mechanical tasks may be reduced. Some necessary duties, such as distribution of supplies and care of equipment, may be reassigned to members of the faculty less interested in heavy committee work, who may see in this essential part of school routine their contribution to the cause. The supervisory function, formerly performed by heads of departments, is rapidly being assumed by grade chairmen and teachers themselves. The whole problem, however, needs thought and attention.

There is much to be done with teacher training. In preparing prospective teachers, colleges and universities must become more aware of the needs of the schools and be willing to re-examine the standards for certification. Almost nowhere, for example, can teachers secure training for the new core courses, or basic courses; they are trained only in the traditional subjects.

Suitable books and supplies must be discovered or produced. In every community there is, in all probability, much useful ma-

terial of which the school is unaware and which might be procured at little or no expense. Careful examination of this as well as of purchasable material will have to be made. From the schools themselves, where the need is known, should come inspiration, encouragement, and time to produce new types.

It is, of course, obvious that the regular desk-equipped classroom; libraries and laboratories so placed that general use is difficult; lack of sufficient art, music, and handicraft facilities—not to mention many other school plant inadequacies—are bound to be deterrents to the promotion of this informal type of school program.

Duplication of topics, books, and material used in various grades needs to be reduced. While it is possible to vary interpretation and application for different maturation levels, much undesirable overlapping and repetition of experience exists.

The program of evaluation, in spite of the excellent work already done, should really begin to yield evidence of progress or lack of it toward all major school objectives. Not only should new vehicles be prepared and training be given in the technique of making tests, but knowledge must be disseminated in the methods of giving and using the material already at hand. The place of an evaluation program in all curriculum building is too little recognized.

There are many other problems constantly in the minds of both teachers and parents. The question of security, for example, was seldom apparent when the class knew "what the teacher wanted," but looms large when the student begins to assume responsibility; the demand for efficiency in the fundamental processes was met more or less acceptably when the child studied English or history, but becomes a matter of anxious speculation when the functional method is employed; the whole question of home reports and ways in which teachers may convey to parents some understandable statements of growth in terms of objectives needs clarification; and some method, acceptable to both school and college, of predicting student success in college and continuing the guidance program started on the lower level must be worked out. The solution of these problems seems to be not only in careful research and the discovery of practica-



ble techniques but in the right kind of publicity concerning results.

The Administrative Council of Eagle Rock High School believes that it is faced with one major problem which both grows out of and underlies all those mentioned above. In the formerly accepted type of school procedure, the functions of education were clearly defined. The duties of administrators, the supervisory staff, the teaching force, and the Student Government were recognized and ran in fairly well-organized channels. To-day no such division exists, and the question of the assumption of responsibility for a common, not a divided, task is pertinent and persistent. With community opinion entering school councils, with the administrator becoming more concerned with freeing teacher initiative than with his own authority, with students and faculty assuming dominant places in administration, with the shift of curriculum planning from office to classroom, with the growing need for centers of coordination where all phases of the educative process may be correlated, a new pattern for school operation must be conceived. When "areas of responsibility" consistent with educational philosophy can be defined and accepted, the school may become a truly democratic institution.

To the finding of such a pattern and the further advance along the lines indicated in this paper, the school considers itself dedicated. It is deeply conscious of the privilege and opportunity which inclusion in the Eight-Year Study has afforded it. Acknowledgment of the help and inspiration given by the Curriculum and Evaluation Staffs and the officers of the Commission must be made, not in words of appreciation or reports of present achievement, but in the way future development may exemplify the basic principles for which the Commission stands.

The educational practices which have been developed at Eagle Rock High School during the past eight years have had a definite bearing on the character of secondary education throughout the city. Eagle Rock is one of the four Cooperating Schools of Los Angeles in the Cooperating Secondary Schools' Study in California. These schools have worked closely together for the past five years. In turn, the Cooperating Schools have

worked closely with a number of experimental junior and senior high schools in the city and thereby have materially widened the influence of the Eight-Year Study and the California Study. Progress reports from the Cooperating and Experimental Schools have been presented from time to time to the other secondary schools, or to representatives from them. These reports have been presented at teachers' institute sessions, at curriculum advisory committee meetings, at workshops, and at many other conference and group meetings. Wide visitation of principals and teachers to these schools has taken place during the period of the Study, to the end that a free exchange of ideas might be encouraged and to observe curriculum practices in operation.

### *Content of Curriculum*

This procedure has provided many centers of advanced curriculum planning and has made it possible to carry on a city-wide curriculum improvement program during these years. The following courses are now required in most senior high schools.

*Orientation—English.* This is a basic two-semester course for all tenth grade pupils. It is primarily intended to improve the pupil's habits and understanding in the use of the English language—speaking, reading, and writing. The following themes suggest content through which the skills of communication may be developed:

1. BX. The School and Its Resources; Personal and Social Guidance.

2. AX. Vocational Guidance of an exploratory nature; the development of standards in Selecting Leisure Experiences. The course includes: the improvement of work habits and study skills; intensive recreational reading for improving skill and increasing understanding; extensive recreational reading, with emphasis upon enjoyment and increased ability in interpretation; activities to improve speech, chiefly in informal relationships; written composition, stressing organization, diction, and the mechanics of correctness (spelling, punctuation, grammatical usage).

*Life Science and Health.* This tenth grade, one-semester course is optional with individual schools. It includes health in-

struction and is planned as a broad, nontechnical course, cutting across all the biological fields; i.e., botany, zoology, physiology, anatomy, etc. Broad areas for investigation in the BX course include: Behaving Ourselves, Continuing the Species (including sex hygiene), Improving Living Things, Conserving Human Life.

This course is considered desirable for several reasons: first, it extends the continuity of science experience in the secondary core curriculum, building upon the junior high school program which requires one year of science; second, it gives each pupil an opportunity to develop improved health habits and to learn about his own body and personal development at a period in adolescence when concern about such matters is at a peak; third, it makes "Life Science" an integral part of a health education program. This plan provides for a strong health emphasis in some one course at each grade level.

*Physical Education and Recreation.* Tenth, eleventh, and twelfth grade pupils pursue the usual physical and recreational activities, with an increasing number of games in which both sexes participate and with health education included in the eleventh grade.

*Fine and Practical Arts.* There is no thinking being carried on in secondary education that is more important than the serious consideration which educators everywhere are giving to the place of the arts in general education. Ways of increasing the contribution of the arts to general education are constantly sought through classroom experimentation, conference, and discussion groups. Teachers and administrators are asking, "What can the arts do for all boys and girls?" "What problems do we find in the way?" "What are some possible solutions to these problems?" The arts include drawing, painting, music, literature, drama, dance, industrial arts, floral arrangement, home management, ceramics, and gardening. An art quality can be included in almost everything pupils do.

As a minimum requirement, one semester each of fine and practical arts is established in senior high school. It should be related as closely as possible to out-of-school living. A core program in this field should be liberally interpreted so that pupils'

needs may be met in whatever manner seems best in each school. Individual counseling will determine the desirable balance to be achieved, in each pupil's curriculum, between fine arts, practical arts, and academic studies.

Study of art provides for recognition and analysis of art elements and principles in the natural world, painting, crafts, architecture, landscape design, and industrial products, and for appreciation of art in living. An acquaintance with the art of other periods and cultures is desirable in this connection. Application of this study to home and school needs is a desired outcome.

A nontechnical study of music offers a carefully planned continuity of directed listening experiences favorable to the development of desirable attitudes toward music. The student grows in his sensitivity to musical beauty and in his knowledge of interest in important music currently to be heard through radio, motion pictures, concerts, etc., and develops skill in listening actively and creatively to worthy music. Emphasis is upon attitudes toward music and acquaintance with it, rather than upon knowledge about it or performance of it.

These experiences are fused with other experience areas in basic courses, or they are organized in "appreciation" classes. The latter have been and are being revamped to vitalize art and music experiences and to apply them in daily living.

*American Life and Institutions.* A unified, one-year study of the contemporary American scene, this course emphasizes the social, economic, political, geographic, and cultural aspects of our country. This one-year course fulfills the state law requirements for the study of American ideals and the United States Constitution. Since proficiency in the basic communication skills is a major objective of this course, strong and consistent emphasis is placed upon those skills throughout both semesters. The double-period course offers special opportunity for individual guidance and enrichment in art, music, literature.

*Senior Problems.* This one-hour basic course stresses orientation and guidance and is designed to meet the terminal and transitional needs of high school seniors. The content varies somewhat according to local needs, but rather generally includes

ten-week units of study in such areas as Family Relationships, Social Arts, Consumer Economics, and Community Relationships, and is continued throughout the entire twelfth year. Time is provided in "Senior Problems" for "occupational readiness" training and checkup of skills needed in afterschool life.

*Physical Science and Specialized Science.* Similar in nature to "Life Science" is the new advanced physical science, a laboratory course which has been developed in most of our senior high schools to meet the general needs of pupils who will profit more from such a course than from the specialized sciences—physics and chemistry.

This course offers an orientation experience to the pupil in the field of the physical sciences—e.g., chemistry, physics, geology, meteorology, mineralogy, etc.—with an emphasis on the *consumer* rather than on the *producer* point of view, meeting the laboratory science requirement for admission to the State University. Suggested broad areas for investigation are: Water, the Earth, the Atmosphere, Astronomy, Fuels, Light, Transportation, Communication, Materials and Processes, Household Equipment.

Pupils enrolled in physical science constitute a representative cross section of the school population with the exception of the specialized interest group. For those pupils who plan to specialize in science or engineering in college, and who demonstrate that they can profit by the experience, specialized courses in chemistry and physics are available.

This program of general education is established in almost all secondary schools of the city. Every boy and girl, in accordance with his interests and abilities, is assured of experience in each of the areas comprising the general program of studies.

The plan of administration divides the responsibility of the core courses equally between teachers from several subject fields. It includes social studies teachers, English teachers, fine and practical arts teachers, physical education teachers, and science teachers. It is customary for these teachers to plan their work together. It becomes necessary under this plan to schedule pupils in blocks so that the same pupils are assigned to the same core teachers. About 200 pupils are assigned to 6 teachers. This

insures opportunity for the development of close understanding and close relationship between a limited group of pupils and a few teachers. Except in those cases where pupils and teacher fail to make desirable progress together, core teachers retain the same pupils for two or more semesters.

### *Current Trends in Los Angeles Secondary Schools*

In addition to these well-established courses, which are now required in practically all secondary schools of the city, there are developing a number of significant educational concepts and practices which have taken root in many of our junior and senior high schools.

These practices are referred to as "trends" because all of them are not established in all the secondary schools of Los Angeles. The Experimental and Cooperating Schools, however, as well as a number of others, have included all these practices in their program and are utilizing them daily in furthering the education of boys and girls.

1. *Community resources are being widely utilized.* The value of the community as a vast reservoir of social, cultural, vocational, economic, industrial, and recreational resources is steadily gaining the attention of secondary education in California. In Los Angeles alone more than 8,000 secondary students have taken trips into the community during the past year to study firsthand the life and activities of their community. It is reasonable to expect that these experiences will help make the transition to adult community living a natural process.

2. *The fine and practical arts assume a new role in secondary education.* It is increasingly clear that the arts are destined to become more closely related to the general education program with the passing of time. Schools are scheduling an increasing number of art and music teachers to work with core teachers. Art is losing its early stages of sophistication and is being brought to bear upon practical everyday situations which heretofore were seldom considered as having art possibilities. Music, too, is playing a new role in present-day education.

3. *The core curriculum is closely related to life.* Less emphasis is being placed upon far-removed and historic incidents,

while more attention is being given to such matters as current problems of the home, personality and personal relationships, physical and mental health, community conditions and activities, vocational preparation and opportunities, artistic living, marriage, recreation, reflective thinking, orientation to the new school, safety, and courtesy.

4. *Health education is strengthened through many instructional centers.* Classes and units of work in health education are increasing in most schools of this section. Various aspects of health education are being studied and discussed more widely than formerly. Health committees and health coordinators study the school to determine how it may better serve the health needs of pupils.

More advantage is being taken of the opportunities offered for health instruction in activities and subjects of the curriculum other than physical education and health classes. Administrative devices such as the long lunch hour, with proper relaxation and recreation, are being included in the daily school program. Visual and auditory aids are being employed more extensively in health instruction. In each grade level definite responsibility for the pupil's health is assumed by a specific group of teachers. Physical education teachers take the lead in grades VII, IX, and XI. In grade VIII the lead is taken by general science and "Social Living" teachers; in grade X, by "Life Science" and health teachers. In grade XII "Senior Problems" teachers bear the major responsibility.

5. *All teachers participate in developing the school's educational philosophy.* Schools are increasingly using the cooperative method in formulating their basic educational philosophy. The underlying philosophy is developed jointly by the entire faculty.

The principal usually begins by discussing the need of a philosophy with the whole faculty. This necessitates frequent and regular faculty or group meetings, with the principal and other administrators, in which the philosophy of education and the objectives of the school are studied. Again, meetings may be composed of teachers working within a given grade or of teachers within a department or related departments.

As a specific statement of the philosophy of the school begins

to emerge, committees, the members of which are drawn from all departments, are formed to study the ways in which the philosophy is being realized in the school and to discover phases where it might be realized. There are as many committees as there are objectives for the whole school.

A school curriculum committee is usually appointed to plan and administer the proposals for curriculum revision in accordance with new educational concepts stated and revised from time to time in the school philosophy.

This cooperative method of arriving at a common philosophy for the school is certainly more likely to meet with faculty approval and to promote democracy and good feeling within the school than are those practices which exclude free and cooperative methods and participation.

6. *Local curriculum planning characterizes the reorganization of the secondary school curriculum.* Through the resources of the Curriculum Office every effort is made to provide assistance, encouragement, and stimulus to teachers and administrators so that they will undertake their own curriculum planning in terms of the needs of boys and girls with whom they are working. Curriculum laboratories are being developed as clinical centers to which teachers and administrators may come with their own problems and receive assistance in such matters as choice of textbooks, problems of slow readers, determining objectives, improving methods of teaching, and other pressing problems.

In large city systems such as ours, where the population tends to segregate in racial, social, and economic stratification, adolescent needs differ widely from section to section and from school to school. A school with a large foreign population and poor home conditions will differ widely in its curriculum and will spend more time in the study of the home, local community agencies, sanitation, and the like than will other schools where these conditions do not exist. A rigid city-wide curriculum which makes little or no provision for sectional and individual differences is more likely to stifle than to promote desirable educational procedures. The curriculum for the city lays down minimum essentials in many directions without prohibiting modification and enrichment according to local needs.



7. *Guidance and the curriculum are inseparable in the new program of studies.* Guidance is no longer considered to be the sole responsibility of the counselor. Guidance and teaching have been steadily drawing together. In some schools several guidance "centers" are designated, usually core curriculum classes. The guidance center teachers provide special opportunities, free from the burden of traditional subject matter requirements, in which the learner's interests, problems, and needs receive primary attention and serve as guides for learning experiences and activities.

In some instances the teacher's free period is given to individual conferences. In others the conference period prior to the opening of school is used for guidance purposes.

Orientation units in grades VII, IX, X, and XII are valuable guidance opportunities.

8. *Administrative devices facilitate curriculum reorganization and development.* The scheduling of a period during the school day for teacher conference has been one of the most urgent and difficult problems facing administrators in schools which desire cooperative curriculum planning and reconstruction. It is imperative that some satisfactory device be set up to make these conferences possible if more functional programs are to be developed.

The principals who have worked out satisfactory procedures have been enthusiastic about the results. The simplest and most satisfactory device appears to be that of having the teachers come to school at 8:00 o'clock and the students at 8:45. This is accomplished by reducing the time of each period a few minutes so that the school day begins three-quarters of an hour later than before. The brevity and the definite terminus of this period are probably advantages.

A few other devices used are as follows:

1. An assembly program in which large groups of pupils are shown motion pictures, or in which they present their own entertainment, with only one faculty member in charge, freeing other teachers for conference.
2. Schedules which give core teachers the same free period for conference meetings.

3. Student councils in charge of study hall, no teacher present.

9. *A broader basis for evaluation is established.* Evaluation techniques are being modified to include a larger number of teachers and administrators than heretofore. Through grade and committee meetings teachers are becoming more cognizant of the values and methods of the new evaluation procedures.

Old-type standardized pencil-and-paper tests are being largely supplanted by instruments that are prepared by local faculties working with psychologists and other available evaluation experts. These instruments are constructed and modified from time to time in accordance with local pupil needs and in accordance with the school's educational philosophy. Evidences of pupil growth in many traits (in addition to scholarship) are also being sought. These data are made available to all interested teachers and are used in teaching and guidance situations. Subjective evidences such as teacher observations, pupil-written reports about himself and his choice of courses and school activities, self-rating scales, interviews with counselors, and the like are being used to supplement objective data.

10. *Coordinators replace department heads.* Department heads are being supplanted by coordinators whose function is to try to organize the program for any year, or span of years, into a more coherent, rational sequence of events. Sharp differentiations between subject departments and their objectives give way and are replaced by a common school philosophy which each department has a definite responsibility in formulating and a definite obligation in promoting.

11. *In-service training promotes desirable classroom procedures.* Many teachers—old and new—wish to use progressive methods in their classes but are fearful of venturing too far from traditional practices because they do not understand clearly what the methods and procedures are. These teachers are encouraged to participate in workshop activities carried on under the supervision of the Curriculum Office during the school year and in the summer. Coordinators and department chairman take particular interest in the new teacher and assist him in every way possible to make necessary adjustments. They have to attend departmental and grade meetings in which educational

philosophy, needs of boys and girls, testing methods and techniques, instructional aids, and the like are discussed.

12. *Principals' conferences affect educational planning.* Principals' conferences, held regularly under the direction of assistant superintendents, have proven their worth in dealing with questions of social and professional betterment of teachers and their working conditions, teacher participation in formulating basic school policies, desirable curriculum building procedures, the meaning and objectives of education, adapting the school to the child, guidance and evaluation, and many other topics.

13. *Teacher-pupil planning vitalizes classroom experiences.* Pupils have a large and increasing share in planning and carrying on their schoolwork. Through this cooperative procedure, where the teacher acts as a leader, guide, and counselor, motivation for serious study is not difficult to supply.

It is the feeling of those who have been in close contact with educational policies of Los Angeles City Schools during the past decade that there has been a steady and desirable growth in curriculum practices and procedures toward a functional program of studies which is designed both to meet problems of modern life as they come to bear upon youth and to prepare them for effective participation in the life about them.

## THE FIELDSTON SCHOOL

NEW YORK CITY

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The Fieldston School is the country day school of the Ethical Culture School system. This system of schools originated January 2, 1878, with the establishment by Dr. Felix Adler of the first free kindergarten in America. The latter grew into the Workingman's School and until 1890 only the children of laboring classes were admitted. In 1890, however, children of all classes were enrolled. Efforts are still made to safeguard the democratic character of the student body by a generous allotment of full and partial scholarships. Today some 36 per cent of the student body shares in these scholarships. A deliberate effort, moreover, is made to have all races as well as all economic and social groups of society represented, in order that children of different races and creeds and endowments may work side by side in a common fellowship of learning.

The Fieldston School is located in the Riverdale neighborhood of New York. It consists of some 18 acres of land with playing fields and seven buildings. Each building is planned and equipped for its own unique educational function. The school is liberally supplied with laboratories for science, with shops and printing establishments and rather unusual facilities for the arts. Many of its collections of books, like the Michaelis Library of Science, the mathematics library, and the splendid set of instructional material in art, are housed in the quarters of the department making use of them. This arrangement is more than a mere administrative convenience. It has in mind that these special collections will make each department headquarters a complete workshop and an informal meeting place for those of similar tastes.

As stated above, the school attempts to enroll students from a cross section of economic, racial, and cultural groups. No quotas have ever been imposed, with the result that one racial

group constitutes a majority of the student body. This fact influences also the operation of the school's educational program inasmuch as both the abilities and the ambitions of its clientele place a premium upon preparation for admission to college, and upon college admission under conditions more restrictive than those affecting the run of the mine of students normally bound for college. Parents of the school come primarily from the professional and commercial groups in New York City. Practically 100 per cent of the student body plans to enter college upon graduation from Fieldston, and a large majority aspires to enter "colleges of the first class." Accordingly there is more than average preoccupation on the part of all with scholarly and academic concerns.

In the school year 1939-1940 the enrollment at Fieldston totaled 505, with a graduating class of 90.

### *The "Fieldston Plan"*

The educational program of the Fieldston School has its origin in the long history of the school system to which it belongs and in the Ethical philosophy of its founder, Dr. Felix Adler. Education, as Dr. Adler conceived it, is a process of cultural development, and consequently takes character from the concept of culture which animates parents and teachers and students. The term culture, as Dr. Adler observed, implies the cultivation of one's powers and the reading of meaning into one's life by establishing relationships between these talents and intellectual, artistic, social, and civic concerns. It is here that his view of culture contrasts with the ordinary notion of individualism. He respects the uniqueness of the individual and he seeks, in common with all progressive educators, to conserve and nourish the individual flavor of personality; but he would accomplish this result not through isolating an interest in order to intensify it, nor by fostering one interest and ability at the expense of other considerations. On the contrary, he seeks to enrich and deepen an interest by making explicit to its possessor connections and possible associations with other lines of activities. To the extent, therefore, that a special interest or ability finds fruitful expression in the cultural areas of art, literature, sci-

ence, family life, and vocational activities, community and civic undertakings, we are "reaching out toward culture, which is a spiritual necessity, prompted by the desire to escape from the narrowing effects of specialism."

There are thus several significant features to the Fieldston Plan:

1. It encourages, although it does not commit, the student to the early development of a predominant interest in a career. It helps each boy or girl find during the earlier years of his education some field of human activity in which he takes a special interest, for which he feels he has special aptitude, and in which he sees adults earning their living in the real world outside of school. These fields may be concrete—fine arts, business administration, pre-engineering, euthenics—and they may be as conventionally intellectual as mathematics, French, Greek, or history.

2. As indicated above, the dominant interest serves secondly as a meaningful line of connection between the dominant interest and other fields. We have frequent illustrations, for example, of students who have entered science classes by way of the art interest only to discover that science (hitherto avoided) was in reality their genuine interest, the second but more enduring love.

3. The major interest functions as a direct and immediate line of connection between the student's concerns in school and socially significant work and associations outside the school. It is so utilized in order to identify young people with agencies, institutions and causes, and individuals actively engaged in building a sounder social order.

4. In the field of methods of teaching, the plan suggests a procedure for educating together pupils of different abilities and divergent interests. It thus makes possible organizing projects in classroom and school to which children can contribute the fruits of their peculiar abilities and interests, and it encourages cooperative arrangements similar to the functional interrelationships we should hope to build up in the outside world. Moreover, by reconciling the need for developing special abilities with the need for association and contact with people of different capacities and interests, it lays a basis for that mutual under-

standing and appreciation of differences which is so essential in a democracy.

### THE FIELDSTON CURRICULUM

The effects of the Eight-Year Study upon the curriculum at Fieldston can be appreciated best from reading the following representative reports submitted by members of the staff.

#### *Economic and Business Studies*

Young people who grow up in a great commercial, financial, and industrial center like New York City are curious about the manifold processes which are carried on in the field of business. They want to understand the world into which they are growing and in which they, too, are to be participants. Their interest is partly intellectual (What is it all about?), partly social (How could it be made to work better?), and partly vocational (Where do I fit in?).

The courses offered to serve these interests began with the study of retail stores in the tenth grade. Starting at the corner grocery, our studies took us to department stores, specialty shops and mail order houses. We argued the merits of independent and of chain stores (in the light of Representative Patman's proposal to kill the latter through federal legislation) and visited both. We were not content to depend upon what the books on marketing had to say about these institutions. We preferred, after securing some acquaintance with the literature (including propagandist publications and current magazine and newspaper articles) to see what we could for ourselves. Merchandising officials addressed us, either in the classroom or on excursions to their stores and warehouses.

Students interested in history were encouraged to investigate the antecedents of modern merchandising. When they discovered that the department store had at one time been nonexistent, later passed into the limelight, only to see the center of the stage soon being occupied by the chain, they were interested in speculating on the new forms of merchandising now appearing on the scene. So we devoted some time to the cooperatives, studying their

development in older civilizations and their final appearance here. What were the reasons for their slow growth in a relatively new country—and what were their ultimate prospects? Must they await a genuine need for their services, or may they be instigated by liberal groups of citizens or by the government? This induced considerable speculation, and raised broad questions of economic organization.

Meanwhile we had stumbled upon the consumer—particular favorite of the cooperators—and his place in the economic structure. So we went on to inquire into ways of organizing business to protect his interests. Such institutions as the Consumers Union were appraised. Students inspired their families to join this organization, and gave reports to the class on the value of its researches.

This investigation of retailing led naturally to a study of those processes of wholesaling and marketing about which the ordinary citizen is so ill-informed. Each member of the class chose a food product and traced sugar, beef, or oranges from the point of origin to the dinner table in New York City. He surveyed sources of supply, life among the producers, transport, processing and marketing arrangements, and the price situation. This provided a foretaste of the type of investigation into industries to which most of the ensuing year would be devoted. Such commodities as milk and water introduced us to problems of government in relation to the food supply. On one occasion we took a trip to the tenements to see how milk distribution at cost was arranged for families in the low income group. At other times we visited produce markets and exchanges, fruit auctions, storage warehouses, and cooperative marketing organizations. This introduction to the middleman was followed logically by a study of those "functional middlemen" who render indispensable service in getting the products of nature from the field to the home. Transportation, communication, banking, advertising, insurance, and accounting were all included in our survey. We contrived to visit a bank, the Stock Exchange, and transport agencies. Our emphasis throughout the course was on the data to be had from business itself, and from government agencies. The students continually enriched our liberty by their own efforts in sending



for pamphlets and reports of one sort or another. Many of them made independent excursions into the business world in search of data. They learned to be a little more businesslike and punctual through these contacts, and even possibly came to appreciate something of the value of courtesy in human relationships. Their letters of thanks to business executives who had addressed us, or opened their shops to us, sometimes brought gratifying responses to the effect that the latchstring was always out to Fieldston students.

This survey of business was continued in the eleventh grade, when we concentrated on a study of industries as distinguished from commercial institutions. Each student chose a field for special investigation. The choices were often dictated by family interests. The students wanted to know more about the enterprises that engaged their fathers' attention. This often proved a fruitful bond of interest between father and son or daughter. One's parent became a respected and useful authority. He provided data; arranged trips, either to his plant or to another's; and sometimes addressed the class. On Father's Day it was often possible to start a discussion wherein various parents contributed material not accessible to us in the books.

Generally the range of choices was such that a number of related industries were under investigation simultaneously, and the interrelations enabled the students to check on one another's results and so to sustain interest in a more nearly unified study. Typical of the industries investigated through the years have been the following: coal, steel, copper, oil, rubber, automobiles, aircraft, glass, plastics, lumber, wheat, silk, rayon, cotton, wool, leather, power, telephones, railroads, radio, movies, newspapers.

It will be observed that these inquiries took us into the greatest variety of fields. The provincial New Yorker had his attention directed to the countryside. Tenant farmers and sharecroppers were no longer foreign to his interest. We got acquainted with the processes of agriculture, forestry, and mining. Not only our own country but the lands abroad came into the picture as we studied the sources of raw materials or the destinations of finished products. The choice of countries depended on the prior choice of industries. It was natural for a student interested

in steel to study Britain; in airplanes, Germany; in telephones, Sweden; in silk, Japan or China; in leather, Argentina; in oil, Mexico; in paper, Canada; in lumber, Russia; in rayon, France; in automobiles, Italy. We were gratified to have made studies of these and of other countries as the war unfolded.

The twelfth grade course was designed to deal with current politico-economic problems. Many students had prepared for it by their detailed studies in the two preceding years. It began with an inquiry into international problems. We took seriously a statement of that eminent Spaniard, Salvador de Madariaga, who represented his country both in Washington and at the League of Nations, that the two central problems of our epoch relate to: (1) the establishment of some kind of order in place of the anarchy which reigns in international relations, and (2) the rise of the masses of the people to greater control over their economic destiny. We set out to investigate these problems, beginning with the world situation. Each student chose a particular country for more intensive study than had been possible during the preceding year; and we contrived to have represented both neutrals and belligerents, as well as all the major continents. Our purpose was to get before us such an assemblage of data as would enable us to discuss more intelligently such questions as these:

How significant are economic causes in world struggles?

What is the truth about the so-called "have" and "have-not" nations: must Germany, Italy, and Japan have colonies in order to get raw materials?

Are economic boycotts safe or effective?

Should the policy of the United States be isolationist or interventionist?

How be a "good neighbor" in the light of oil and land expropriations?

What are the prospects for rebuilding the kind of world the reciprocal trade treaties envisage?

Can a creditor nation go on maintaining high tariff walls?

What prospects are there, economic and otherwise, of developing a genuine Pan-Americanism?

Can world reorganization possibly develop along regional lines?

Is Streit's *Union Now* a fruitful source of suggestions for possible world organization?

Everyone would like to be able to answer these and other questions, and we do not flatter ourselves that we were able to find all of the right answers! But we do believe that we came to understand the issues better, and to discuss them more intelligently. Our background studies consisted in investigations of the resources, human and otherwise, of the various nations; their peoples' characteristics and living standards; forms of government; manufacturing, trade, and finance; defense measures; war participation. These studies were conducted in accordance with a carefully prepared outline and involved the use of an extensive library, including books and magazines, government documents, and reports and handbooks of the Foreign Policy Association and the Institute of Pacific Relations.

We had already discovered that Madariaga's two epochal problems were not dissociated. The United States could not maintain its high standard of living in the midst of all the maladjustments which followed upon the first World War. And now the world was plunged into another—or was it the same war? What prospect was there of any permanent gain in employment or of living levels should a defense boom develop in the United States?

We were now ready to turn to the second of Madariaga's problems: the rise of the masses to greater control over their economic welfare. What could labor unions do to better the lot of the workers? We were concerned with the arguments pro and con with respect to these organizations. Industrial versus craft unionism was argued. Case studies of particularly interesting unions sometimes involved firsthand knowledge of some of their activities.

Then we turned to government measures for dealing with economic betterment and considered such issues as relief, pump priming, social insurance, crop control, social planning. The tariff as an instrument of national policy had already engaged our attention.

We were, of course, already deep in the problems of the business cycle, and that called for specific inquiries. Continuing unemployment, both of labor and of capital, boded ill for the future of democracy. We needed to know something of the operations of commercial and investment banking, and of the endeavor to control these operations through the Federal Reserve System and the Securities and Exchange Commission. The monopoly studies of the Temporary National Economic Committee were invaluable to us.

It appeared that the familiar system of free enterprise, despite its notable services and ardent advocates, had been rigorously "modified," and we were able to wind up our year with one of those debates without which any course on economic problems is incomplete—a debate on the merits of capitalism, modified capitalism, cooperation, Socialism, Communism, Fascism, and their variants.

Through such experiences as these we try to meet two of the central "needs" of adolescents: to understand the activities of their elders and to find their own place among them. This account should demonstrate that this field of study is not "narrowly vocational" or "prematurely specialized," but as broadening, liberalizing, and truly educative as any of the traditional arts and sciences.

### *Household Arts*

The Eight-Year Study of the Progressive Education Association provided opportunity for the Household Arts Department to develop and expand its "Home and Community Problems" course, which had previously been developing under a grant from the General Education Board.

The interests and needs of the Fieldston students at the various age levels shaped the subject matter into three divisions; namely, Child Development, Health and Nutrition, the Individual and the Community. There is a continuity running through the three years, and the work takes on a progressively mature point of view and gives the student a sense of wholeness. For example, the social aspects of health and nutrition are emphasized as well as the personal, thus pointing up the relationship between personal and social responsibility for good health.

The classwork is carried on by means of readings, discussions, demonstrations, lectures by guest speakers, observations of young children, excursions, and in the senior year by participation in some field of social service work.

Close relations between the Household Arts Department and the other departments have worked to promote well-rounded and integrated courses. The Biology and English Departments especially have been drawn upon for basic materials and interpretations.

The following brief synopses of the courses will give some idea of the scope of the work and illustrate briefly the methods by which we endeavor to reach the aims of the course.<sup>1</sup>

*Child Development.* By studying developments from the prenatal period through adolescence, the student is given insights and knowledge which will help make her more tolerant and more understanding of individual differences. Observations of children, practical work with materials, and discussions with teachers and a pediatrician tend to put the work on a real life basis and help interpret for the adolescent those areas of human relationship which are very personal to her.

An illustration of the type of project growing out of such a course is our day nursery. The need for a day nursery in an underprivileged community adjacent to the school was discovered by the class through field study. This need was further explored through conferences with public health nurses serving the district and, with their guidance and encouragement, the class led the student body in planning, financing, and maintaining a day nursery for young children from underprivileged homes. A vacant store was rented, redecorated, and furnished appropriately, and the class organized groups to carry out the routines of the nursery. The project has given meaning to the study of children, promoted tolerance for people of different cultural status, and provided a functional release for adolescent altruistic impulses.

Other firsthand experiences provided as a part of this unit include:

<sup>1</sup> For a more complete description of the work of this department, see H. B. Kay and G. G. Hill, *A Three Year Course in Home and Community Life*.

1. A visit to the Manhattanville Day Nursery to observe children being given physical examinations.
2. A visit to the Baby Health Clinic to see local public health procedure for child care.
3. Frequent observation and some participation in the Fieldston School prekindergarten group.
4. Planning and making toys for prekindergarten children.

*Health and Nutrition.* The course in nutrition has aimed not only to give the students a wider and more intelligent understanding of the importance of nutrition as a fundamental factor in determining the well-being of an individual, but also to show the larger relationship between economics and food as it affects the well-being of a nation.

The factors which influence the food needs of an individual are first considered. This provides opportunity for discovering the student's food habits, discussing her nutritional needs, and working out practically those theories which have been under consideration. This leads to the study of, and the application of dietary theories to the planning and preparing of family meals. From here it is but a short step to awaken the social consciousness of the need for improved nutrition of people in general, which provides opportunity for considering the social and economic factors which are involved in this problem of nutrition.

To integrate the school experience of the girls with the real problems of the community, several study excursions are regularly included in the course. The following are typical of the places visited:

1. New York City Department of Public Welfare, to discuss problems with a member of the department.
2. New York Hospital, to see the Nutrition Clinic and special wards where nutrition problems are studied.
3. Markets in various districts of the city, to study food costs in relation to economic groupings.

*The Individual and the Community.* By the time the student has reached the senior year, interests outside the immediate home environment have developed, and the home and the individual in the community are viewed with greater objectivity. Coopera-

tion with the course "Biology and Human Life," required of all girls majoring in this field, makes it possible to give the students a wide range of experience in those areas of human relationship which have to do with the adjustment of the individual to the home and the community.

Beginning with a survey of the school area as a functioning unit of society, the factors which directly influence the home and the individual are studied in their social context. Excursions to housing developments, health centers, social agencies, and juvenile courts give firsthand contact with life situations and stimulate group interests, which in turn determine where the emphasis will be placed—on the community, the individual, or the home.

For a part of the year students work at a social agency of their own choosing, either a hospital or a settlement, in out-of-school hours. Discussions of problems arising out of this work bring life situations directly into the classroom. We have also found that work with a social agency outside the school promotes tolerance and a better understanding of the slow evolution of social change.

### *Biology and Human Life*

One of the significant contributions of Fieldston to a program of general education for girls has been this advanced course recently offered senior girls and required of all seniors majoring in "Home and Community Problems." This course considers woman and her function as homemaker and as a citizen in a democratic society. Through a study of child development, nutrition, housing, consumer education, and community planning, it endeavors to bring out the contributions of woman to our total culture.

The time is divided among laboratory work, conferences, discussion of the text, reports on special topics, and excursions to the American Museum of Natural History, the New York Zoological Park, welfare agencies, research laboratories, nursery schools, hospitals, and clinics. The required reading is taken from *The Science of Life* by Wells, Huxley, and Wells. Collateral reading is suggested in a large number of references. Specialists in vari-

ous fields speak to the class from time to time. Motion pictures are used throughout the course.

The course aims to select from biology and related sciences certain facts and principles which may enable the student to understand herself and others and to form a more unified picture of the universe and of man's relation to the universe. In other words, it answers some of the questions adolescents themselves raise and helps them in solving some of the problems of which they are aware, such as, for example, those of securing a certain degree of independence in the home, making adjustments to their own and to the other sex and to new social conditions, choosing a vocation, and formulating a philosophy of life.

Of very general interest is the study of reproduction, the physical development of the child, and the work in genetics. Our experience seems to show that, at least for the more mature students, the part of the course which deals with the child's social development makes the greatest appeal. Adolescence is particularly a period of social adjustment, and questions raised during the progress of this study show how vital these problems are at this time and how great is the felt need for help in their solution. This work is postponed until the last quarter of the year to enable the instructor to gain the confidence of the class—thus securing greater freedom of discussion and making it possible in some cases to bring to the surface personal problems which can be discussed only individually—and to enable the students to observe children over a considerable period as preparation for this study.

As an introduction to the course a few general topics are considered, such as the characteristics of all living things, the limitation of life in space, the subdivisions of the field of biology, a few of the steps in the progress of biological knowledge through historic times, some of the resistances and antagonisms to its spread, and the agencies which are advancing this knowledge today.

The first study undertaken in the laboratory is the succession of life in a hay infusion, to learn of life at its lowest terms. The students study the energy changes involved in life processes; they discover that there are intermediate forms between plants and animals as these words are commonly used, and that there



are colonies of cells, both plant and animal, illustrating the advance from unicellular to multicellular organisms.

This leads to a brief review of the principal groups of the animal kingdom as shown in Darwin Hall at the American Museum of Natural History, and to a study of man's nearest relatives among the great apes—including an excursion to the New York Zoological Park, where the different types of primates are observed and their physical and mental resemblances to and differences from man are noted. Some study is made of the different types or "races" of man in existence today. The students work out their nasal and cephalic indexes; they observe their eye color, hair form and texture, and other physical characteristics to determine, if possible, their racial heredity. Race prejudices and intolerance among children and adults are discussed in connection with this topic.

From excursions to the planetarium and to points of geological interest in the vicinity of the school, the students get some understanding of the scale of the universe, the origin of the earth, the nature and extent of the forces which have been at work, and the great length of time involved in bringing the earth to the condition in which we find it today. Excursions to the geological halls of the American Museum of Natural History depict the gradual development of life on the earth. Particular attention is paid to the various subhuman and human remains widely scattered over the earth.

Laboratory study of mitosis in the root tips of the onion or hyacinth introduces the work in genetics, followed by the crossing of different strains of the fruit fly. The strains used are recorded, the offspring counted, and the results compared with those to be expected according to Mendel's law. The students are encouraged to study their own heredity, if information is available. In connection with this topic, some attention is given to the problems of eugenics and euthenics. Some of the questions asked are as follows:

In what ways does the human race need improvement?

What are some human assets? some human liabilities?

What are some of the ways suggested to restrict the socially inadequate? to encourage the socially fit?

The study of the physical development of the individual is introduced by laboratory examination of microscopic slides and models illustrating the early stages of development in the starfish, the fish, and the frog, to understand the process of cleavage, of blastula and gastrula formation, and the subsequent development of the three body layers. The pupils study next the development of the chick. They take entire charge of the incubator, opening the eggs at intervals and sketching the embryo at different stages of development. (A series of nine human fetuses is observed for the early development of the human being.)

When the chicks appear, they are kept for a longer or shorter time as seems desirable, and their reflexes and their tropisms observed. Learning experiments with the chicks, white mice, or rats are included. This leads to a discussion of the vertebrate mechanism of adjustment and response, beginning with observation of microscopic slides of nervous tissue and continuing through dissection of several vertebrate brains and study of models of the human nervous system. Instinctive and intelligent behavior is here discussed and the animal and the human mind compared. Several lessons are devoted to the cortical mechanism involved in language.

Though evidences of evolution have been presented in connection with various topics, it has been found advisable at some point in the course to consider how greatly our thinking has been influenced by the concept of evolution. If necessary, the principal arguments for evolution in biology, and some theories as to how evolution has taken place, are reviewed.

In whatever study has been made of man, so far, it has become increasingly apparent that since early times man has been a social animal, using implements and tools of various sorts to extend his mastery over nature. After a brief reference to the social life of certain insects, and the beginnings of man's various cultures, the class is shown films illustrating some features of the life of peoples living under conditions quite different from those of our present-day civilization. This study shows how varied are the forms in which different peoples organize their lives.

As has been suggested earlier, the study of the child's social development is prepared for by observation of children with

whom the students come in contact in the day nursery, the Hudson Guild Settlement House, or the Fieldston Lower School. These observations are discussed with a psychiatrist.<sup>2</sup>

Outlines have been prepared for the study of a baby if there happens to be one in the family of any student. If the attitude of the group seems to make it advisable, more personal questions are discussed, sometimes in groups, sometimes in individual cases. Questions may arise as to the use of the student's leisure time, her social activities in the home and school, how the school meets special needs of the student, the preparation she is receiving for a vocation (if one has been chosen), the special abilities and talents approved or disapproved by the home or society, the fundamental things most wanted in life, how friends are chosen, and behavior problems to be met at college. This work serves to bring out some of the characteristics of a well-integrated personality, and the conditions favorable and unfavorable to its development.

In the course of the year's work the class becomes aware of many problems, some of which biology has not solved and possibly can never solve, others that are being solved, and still others so closely related to social and economic factors that biology is but one of the agencies working for human betterment.

Finally the class considers, in the light of the year's work, the relation of biology to human betterment. It asks what biology can contribute to the problems which confront man today, and what education may do to realize our vision of the future.

### *The Fine Arts*

The Art Department was fortunate in entering the Eight-Year Study at the time when it was re-examining its objectives and methods in serving both the special and the general art interests of students. The training of the special student had up to this time been primarily professional in its emphasis, while the training of the general student was augmented by certain experiences in the arts.

In reconsidering its aims and methods the department sought

<sup>2</sup> This work has been described in Thayer, Zachry, and Kotinsky's, *Reorganizing Secondary Education*, D. Appleton-Century, 1939, pp. 175-180.

to establish a philosophy and a teaching method which would integrate the art experience for each student according to his particular demands or interest in the subject. The Eight-Year Study gave the freedom and latitude for experimentation and reconstruction, and a grant from the General Education Board provided the necessary means for carrying on the work.<sup>3</sup>

A general plan of teaching has been developed which relates its objectives to the changing pattern of growth from younger to older adolescence.

In the first stage (roughly grades VII and VIII) the emphasis is on exploration—exploring one's creative potentialities and the fields of visual and plastic media. The second stage (approximately grade IX) is characterized by a period of extensive exploration in one art field and a deeper orientation in the general field of the arts. During this period emphasis is laid on technical experience in developing visual, tactile, and manual expression and on the gaining of an insight into one's own possibilities as well as an acquaintance with the field of art. In the early stages, and in the later stages as well, the attempt is to employ art as a language and to weave it into the subject a pupil is studying. It thus reinforces and supplements the academic instruction of the school and serves as a means of communicating, receiving, and interpreting ideas and feelings.

The third stage (approximately grades X, XI, and XII) covers the training of the older adolescent, both the special and the general student. The student with a particular aptitude for art is under the direction of a teacher, and his interest becomes the basis or center for his entire education. The other studies reviewed in this report, as well as social studies and science, are intimately related to the art interest (see sections on history, French, etc.). The special field thus becomes a means of enlarging the interests and experience of the student rather than narrowing them as in ordinary vocational education. The emphasis of these later years

<sup>3</sup> *Art in General Education*, prepared by the Committee on the Function of Art in General Education, represents a complete statement of the objectives of art education to which the Department of Fine Art subscribes. Mr. Victor D'Amico, head of the Art Department, was chairman and scribe of this committee.

is both cultural and technical but at no time is the mastery of techniques made more important than the cultural experience.

The emphasis in the art education of the general student is mainly cultural, in both the personal and the social sense of the word. This leads to a broad understanding of the arts of the past and present as they relate to the social, political, and economic life experiences of the student.

A significant outcome of the experiment has been the development of a workable technique or teaching method for recognizing and developing the creative capacities of a variety of individuals. This has required an offering of many media and experiences from paper to metal, painting to motion pictures. In the effort to study individuals and to discover unique patterns of growth, formal approaches such as fixed courses of study and dictated lessons were abandoned. Each student is regarded as a separate identity with a peculiar learning pattern of his own. The teacher seeks to discover each identity and its particular pattern through intelligent exploration. The method is one of individual teaching and expression, but group experiences, such as mural painting, stage decoration, and the like, are provided for social discipline and satisfaction. These methods and convictions have so far been validated by the apparent development in creativity, independent thought and action, and personal integrity of those students who have taken art.

One important endeavor has been to establish some basis for evaluating the results of the work. While no means for exact measurement have been devised or unique methods for evaluation produced, evaluation has been a conscious aim of the department. The significant result of this endeavor has been the development of the student's own judgment in making decisions, solving problems, and evaluating his own progress. Thus, from total blindness or dependence on the teacher in regard to results, the student has become able to measure his own achievement and note his own growth or lack of it. He is enabled to detect a direction and to proceed toward it. On the other hand, the teachers have used more accurate means of examining and recording experience through case studies and student self-analyses. One significant outcome has been the abolition of grades and

the importance attached to them. In regard to evaluating the entire art experience as it serves the individual outside the school and in adult life, evidence is abundant if not accurate. There are records of students who have taken the specialized courses under the Fieldston Plan over a period of years. On the whole these students have succeeded in college and in professional positions. Those who have continued art for cultural or leisure purposes have found themselves well oriented to further study, according to their own reports and the reports of their instructors. But of greater significance is the fact that these students have on the whole continued an interest in the chosen field of study and maintained their individuality and personal style of working in the face of arbitrary and academic influences.

### *French*

The tragic dislocations of our time challenge the language teacher, among others, to re-examine his offering. During the experimental years at Fieldston we have sought to meet that challenge in a manner that would be well grounded in the nature of language materials, and would correspond to the real linguistic capacity of our students, their other gifts and needs, their backgrounds, the world situation, etc.

*Relating the Student to the Foreign Culture.* The Fieldston Plan naturally suggests the utilization of students' major interests as an approach to the foreign culture. Thus a student majoring in music may make himself an authority (for the class) on French music; a mathematician may report on the work of his French colleagues; a social scientist may study current affairs as reported in the French press. These special-interest projects take many forms.

French readings in special-interest fields may range from a 30-minute reading to a 10-hour research project, culminating in oral (sometimes written) presentations and discussion in French. In the school year 1939-1940 about 45 students completed about 200 such projects. A random listing of some subjects from a record form immediately at hand follows: "Les Bateaux d'Autrefois et d'Aujourd'hui," "Les Colonies Françaises," "Le Rôle de la Musique dans la Société," "La Vie de Louis Pasteur," "Pablo

Picasso," "Les Jeux Olympiques," "La Défense Passive en France," "Les Réfugiés en France," "Les Costumes du XVII<sup>e</sup> Siècle," "La Pluie," "Louis Daguerre," "L'Enseignement en France," "Dalladier," "Gauguin," etc.

Encouraged to regard geography as a study of the way in which the physical characteristics of an area help determine the mode of life and the occupations of its inhabitants, some art students constructed 20 plates showing the regional products, traditions, etc., of France. Outline maps indicated the position of the area treated in relation to the whole of France. These plates were later used by business and economics students. Another student constructed three-dimensional relief maps of France and her colonies in plaster. Arising out of the study of French geography, his work now facilitates that study for others.

Students with a special bent or aptitude have been encouraged to execute murals, stage-sets, pieces of sculpture, boat models, photo exhibits, etc., all arising out of class reading and discussion. These are often permanent acquisitions and teaching aids in the classroom.

Another group of French students has translated for the Art Department the French texts accompanying some history of art material, making it available to younger children.

The music of the country studied may reach out of the language classroom to serve many community occasions: caroling at Christmas; spring sings; and, at Thanksgiving, Normandy peasants in costume singing "Bon cidre doux!" Here students, while cultivating a special interest, seek to create not a select French Club atmosphere but the spirit of a family festival, drawing on a rich human heritage.

*Using Community Resources.* There are few communities that are so favored with foreign cultural resources as the New York area. The manner of tapping community resources in New Mexico, Louisiana, or cosmopolitan New York will necessarily vary. It will vary with the social and economic status which the students represent. But whether or not the foreign language teacher of another community is as fortunate as his New York colleague, with his World's Fair, museums, galleries, concert halls, ships, etc., he may exercise a high function. He need not be con-

tent to help nourish a waning tolerance. He must actively assist in demonstrating a view of living that goes beyond mere tolerance and the historic American process of assimilation to make constructive use of differences for building American culture.

Like other parts of the language curriculum, the following activities will involve preparation, will offer meanings for study as important as those presented by the official text, and will usually culminate in group sharing:

1. In a world in which social, political, and economic problems multiply at a fearful rate under indigenous and foreign guises, and ideological solutions swarm, it is important to demonstrate the persistent and universal nature of human problems. Movies, shown in school and out, seen by individuals or groups, make excellent source materials for this demonstration. Adequate planning often involves previewing and preliminary discussion. In addition to movies on France, at different levels of maturity, these films, among others, have been used: *Ballerina*, *End of a Day*, *Harvest*, *Quai des Brumes*, *Guerre des Boutons*, *Grande Illusion*, *Champs-Élysées*, *J'Accuse*, *À Nous la Liberté*, *La Maternelle*, *Les Misérables*, *Roman d'un Tricheur*, *Trois Valses*, *La Bête Humaine*, *Entente Cordiale*, etc.

2. Radio broadcasts, native and foreign, including those sponsored by the American Association of Teachers of French, local colleges, and intercultural groups, offer values in many connections—literary, political, etc.

3. Parents and alumni who have gathered, while abroad or in the course of their jobs, knowledge or material on industrial processes, international trade, costumes, etc., represent another source that may well be exploited through a Parent-Alumni Exhibits Committee.

4. Soccer games with the younger members of steamship crews, in port for a few days, have been promoted as occasions for social gatherings between national groups. These games ceased with the war. The war has been a great inconvenience to the language teacher!

5. The Alliance Française, the French Folklore Society, local universities, and other organizations offer lectures, theatricals etc. An exhibit of French children's art at the Lycée Français



and midnight Mass at the French church gave new vitality to discussions on art and religion.

6. A unit on the position of women in France grew from questions originating in a junior group of girls. What accounts for differing attitudes toward "going out" with boys? What part does the Frenchwoman play in her family and larger community as compared with the American woman? How did her role evolve? Does she vote? What are her civil rights? What share did she have in the Popular Front government? A bibliography consulted by the teacher helped her guide the preparatory discussions. A social visit and luncheon at a "typical" French home, maintained in New York as a pension by a Frenchwoman of intelligence and culture, followed. Many questions were asked. Further class discussion crystallized more searching questions and a second visit was arranged at which the American girls continued to ply the French mother with their queries on the political and social status of women in France. Repetitions of this project with mixed groups interested in other questions have been equally worth while. We can help American youngsters to a realization that the good, bad, or indifferent institutions that govern the role of women, by our standards, are neither "right" nor "wrong" but the product of historical forces not beyond man's control.

*Understanding the World Community in Conflict.* Language teachers have spoken glibly of internationalism. The degree of interdependence that technology has put upon us, as Hogben points out, may well be intolerable to man in the present stage of his understanding of cultural processes. An orderly retreat on some fronts may well be indicated. But let us keep our compass set right. No magic wand of isolationism will bring order to the American scene without reference to the world chaos and without some sense of the inescapable unity of the human family. We shall continue our international correspondence, disorganized by the war. These letters, together with recitals of daily concerns that somehow survive even war, have brought our students some moving passages, which have been printed in the columns of the school newspaper.

*Using Foreign Visitors.* While foreign visitors, especially the distinguished variety, must today usually be regarded as propagandists, they may still bring stimulating material into our

classrooms. Preparation and follow-up enhance the visitor's contribution or place it in proper perspective. When the writer had occasion to welcome a member of the late Popular Front government to the school, the program provided for a general assembly at which the visitor addressed the whole student body in English before meeting the French classes for closer discussion in smaller groups.

*Foreign Cultural Forms.* The language teacher, proceeding from the aristocratic bias of our educational system, too often stresses the quaint aspects of foreign culture. Let us study differences, by all means, but let the study of significant differences serve to underline the persistent nature of human needs. The following questions may be suggestive of an approach to the study of cultural forms that is as valid in the elementary French course, where it may be carried on in English, as it is later, when it may be based on French source materials:

Who owns the land in France?

How does the existence of many small parcels of land affect the mechanization of agriculture?

Why did depression and unemployment come later in France than here?

How does the question of land ownership bear on the responsiveness and stability of governments?

Is the French system of land ownership more or less democratic than ours, and why?

"Are the French a pure race?" and

"Who goes to the French university?"

These suggest other significant questions and elicit important sets of facts appropriate to their discussion.

*Approach to Sociology.* Advanced French courses can be made more dynamic and meaningful to high school seniors today by a consideration of such questions as these:

What have been France's contributions to free institutions?

What is our political debt to France?

What has France contributed to our understanding of education as an intellectual discipline and education for living?

Where is education more democratic, in France or in the United States? Why?

To such discussions Voltaire and Montesquieu contribute pages

that may not be irrelevant to an understanding of France's current politics and our own, and Rabelais, Montaigne, Fénelon, and Rousseau present notions on education that are alive today.

A study of the evolution of modern ideas has more to offer young Americans than a conventional literary history course. And it will not inhibit the good practice of purely recreational reading.

*Political Conflict.* The techniques of cooperative group research, whereby different members of a class investigate different aspects of the same question, have been employed in advanced French courses to examine specific areas of political conflict. In this manner a group undertook research on: (1) the Spanish Civil War as seen by various French writers; (2) the partition of Czechoslovakia as reported in the French press by journalists of all shades of political opinion; (3) *Le Drame Juif*, the history and status of Jewish minorities studied by a French author. These served at the same time as excellent units in propaganda analysis.

### English

It must be remarked at the outset that there has been no marked diminution, during the past six or seven years, in the number of students taking the College Board Examination in English. Fortunately for us, the Comprehensive English Examination is a test of power rather than of fixed content. To a great extent, therefore, it has proved no serious obstacle to our liberalizing the work of the English Department.

We have moved in the direction of better integration. We have not done violence to the practice of composition and the study of literature, reducing English-as-language to mere side line coaching in correct usage to be employed in written work for other subjects or confining English-as-literature to the narrow status of "handmaiden" to social studies or science. We have tried to preserve and demonstrate *all* the possibilities of English as a common meeting ground—probably on the secondary level, the chief one!—for humanistic studies. Through a common heritage of works written in (or translated into) the native language, and through the students' own writing, we have endeavored to explore, in balanced fashion, man's capacity for creating ordered

and aesthetically satisfying communication, man's emotions and feelings about himself and other human beings, man's best thinking about the problems of society, and man's speculations concerning himself and the universe. We have not chosen arbitrarily to weight any one of these emphases; we have respected the right of each individual to respond to any one or more, as his interests incline him; and we have believed in his need to be aware of all of them, as encountered sometimes separately and sometimes jointly in literary works.

Rather than integrating the curriculum by oversimplifying materials, so that they might be classed under perhaps impressively entitled units of work, we have preferred to meet these materials with all their natural complexity and to assist the student, through analysis and organization of elements, to effect his own integration of experiences with subject matter. Perhaps the most unusual aspect of our selection of literary materials is our inclusion of other than English or American writers. We do not hesitate to make use of translations from the Greeks, the Hebrews (Bible selections), the Romans, the French (medieval, Renaissance, and modern), the Germans (medieval and modern), the Italians (the medieval Dante and the ultramodern Silone), the Russians (Dostoevski, Chekhov, and Tolstoi), and, on occasion, poets of ancient Scandinavia, China, and Japan. Throughout virtually all six grades the ultimate choice of the material to be read is made by the students, after they have considered various alternatives suggested by the teachers.

But probably most significant of all is our practice, under the stimulus of the Fieldston Plan, of consciously planning and providing satisfactory adaptation to individual capacity, needs, and interests, as well as of turning individual capacity and interests to the advantage of the whole student group. This is possible in at least three different kinds of activity: (1) the work in written composition, (2) the oral discussion of commonly read literature, and (3) the individual free reading. In the first, students are encouraged to choose topics for written work from areas of special interest, whether it be model airplanes, photography, the theatre, fine arts, music, microscopy, social problems, travel, or what not. Here the choices are, of course, most informally made. But it is

also possible to conduct more formal relations, in special research and preparation of papers, between English and such other departments in the school as history, euthenics, art, business and economics, and science. Again, teachers encourage students with creative ability to offer as substitutes for written papers original work in the graphic, plastic, and theatre arts. Students draw sketches or model figures of characters in novels and plays. Others regularly design and construct stage-sets based on plays read in English classes.

A much more complex and difficult activity to describe is that which occurs when commonly read literature is discussed in the classroom. The instructor early in the year makes a point of ascertaining the special interests of his students. (This information, along with other pertinent data, is written in the printed Record of Recreational Reading card during the first week of classes and, on the senior level, is amplified in a four-page questionnaire which all students fill out on the opening days of school. It is not long before one knows the individual composition of a class as well as the orchestral conductor knows the instrumentalists under his direction. Certain students can soon be depended upon to contribute explanations of child development or home and community gathered from the euthenics work, or current theories on personality and environment gleaned from the advanced biology classes. Those especially interested and informed in history, politics, current public affairs, and the like can be relied upon to speak on points of social interest. Still others who excel in foreign language studies are ready to help when linguistic problems arise, explain allusions in Latin, French, or German, compare translated passages with the original text, and furnish information concerning the culture and civilization of ancient or modern Europeans. Thus, bit by bit, students put to use the information and experience stemming from other departments of the school.

The third and last activity in which individualization and fertilization of interest is encouraged consists of the free reading done by all students. Throughout the six grades our students are expected to read from six to ten books independently, in addition to the large number studied in class. All of our students meet

this requirement, and most of them greatly surpass it. Much of the reading is, of course, done during summer vacation and school holidays. Much of it also consists of mere browsing and time passing—reading purely for pleasure rather than along the line of any special interest. However, despite these considerations, it has been possible to direct a considerable portion of this reading activity along purposeful lines. Students with special interests have been encouraged to read factual books related to such interests. Thus one student read systematically among books about composers and musicians; another read indefatigably in the field of juvenile delinquency and psychology. But we do not feel justified in permitting students with strong interests to confine their reading exclusively to factual material related to a single field of interest. We feel that each student should broaden and extend his background through wide and general reading, and also that he should find emotional expression and clarification through imaginative works. This can be achieved through interesting the student in poetry, drama, and novels which in part impinge on the area of special interest.

Most of our students, even though they may not express it, have a need for clarification in psychological and emotional areas. This need, we feel, can be satisfied to a surprising degree through the reading of stories, either imaginative or biographical, of the lives of other individuals. Thus the free reading program can be made to serve as indirect guidance. This is one of the chief ways in which we consciously strive to make the English work of service in meeting the needs of adolescents.<sup>4</sup>

### History

In general it can be said that release from the necessity of preparing large numbers of students for the College Board Examinations has meant greater freedom for the History Department to develop its contribution to the Fieldston Plan. Each student can be given a greater opportunity to understand the relation of his vocational interest to the various cultures which he studies. The development of this aspect of the work has

<sup>4</sup> See Elbert Lenrow, *Reader's Guide to Prose Fiction*, D. Appleton-Century, 1940, pp. 1-51.

given greater richness and deeper meaning to the study of ancient history in the tenth year and European history in the eleventh. For example, the boy who is interested in art can see the effect on the artist of the civilizations of the ancient world and study in turn what the artist contributed to each of those civilizations. In this way he begins to understand the relation of an individual to his culture. The girl interested in eugenics can study the position of women in other civilizations and thus gain a new insight into the problems and opportunities of women in our own civilization.

The American history course in the twelfth year is more a survey of contemporary problems with their historical backgrounds than a strictly chronological history. The opportunities offered by such an approach can be best pointed out through a few examples.

The first unit, which under the old scheme would have been a somewhat detailed study of the colonial period, is, instead, a view of the Contributions of Various National Groups to American Life. Colonial institutions, so significant for our later development, are studied as contributions of the earliest settlers, but emphasis is also put upon the contributions of immigrants all through our history even down to those of the most recent political refugees. Our Fieldston students, most of whom come from non-English stock, have a great need of seeing themselves as a part of the main stream of American life. Their enthusiasm when they report on the contributions of the groups with which they are connected makes one see that this need can be met. The importance for democracy of the resulting appreciation of differences need hardly be stressed.

In the unit on Government it is possible to go beyond the usual study of the constitution to take up the present operation of the federal government and the main outlines of the government of New York State and of New York City. In this connection an experiment tried last October should be mentioned. One Saturday ten girls assisted the League of Women Voters in giving out information about the city elections at booths in different department stores. Their subsequent report on the ignorance and apathy of adult citizens about their own city government brought home

to the rest of the class a real sense of the urgency of education for democracy.

While in each unit the relation of the student's vocational interest to the topic is discussed, this aspect of the work comes to a climax in the final unit as the students begin to see what the artist, the writer, the musician, the woman, the businessman, have contributed to the American Tradition. Very interesting illustrations for each profession have been given, but probably of deepest meaning were those class periods in which the students whose special interest is in music showed the others what music has done for the American Tradition. Songs of the Revolutionary period, slave songs, labor songs, were played on records, and the students themselves sang some of the songs associated with the days of canal and railroad, and of western expansion.

Another aspect of the work which we hope to develop further is an attempt to orient the students specifically to the parts of the country where they will spend the greater part of the next four years. In the last few weeks the students who know the colleges to which they are going have been making reports on the sections where they will be. We hope that they will carry with them the habit of looking at the social and economic significance of their surroundings.

The Eight-Year Study has also permitted a fuller use than would otherwise have been possible of the experiences of students who have attended summer work camps or have gone on study tours during the spring vacation. They brought back to the rest of the class their own deepened understanding of the human significance of the problems we had been discussing all year.

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## THE FRANCIS W. PARKER SCHOOL

CHICAGO, ILLINOIS

Through the vision and generosity of Mrs. Emmons Blaine, the Francis W. Parker School was established in Chicago in 1901. It was founded as a private laboratory school, under the directorship of Colonel Francis W. Parker, with Miss Flora J. Cooke as principal. It was dedicated to the ideal of developing better ways of educating young people for a democracy.

Said Colonel Parker:

Education is the all-sided growth of the individual—physical, mental, and moral. Community life is the ideal of education, because it is the only ideal great enough to provide for this all-sided development of the individual.

Community life is that state of society in which every individual member orders his conduct with reference to the good of the whole, the whole being so constituted as to necessitate the highest development of its members.

Character constantly realizing itself in practical citizenship, in community life, in complete living, is the immediate, everlasting, and only purpose of the school.

For thirty-three years after its establishment the school carried on extensive experimentation in the elementary grades. These experiments were directed toward the goal of finding better ways to educate young people for democratic living.

It was impossible, however, to concentrate markedly upon experimentation in the high school because college requirements restricted freedom of procedure and freedom in determining curriculums. The primary purpose of the school was blocked, as it were, at the end of the eighth grade.

When the Eight-Year Study was proposed in 1931, Miss Cooke

the founders of the school had in mind when they established it at the turn of the century.

### *The School in General*

The school is located almost in the heart of Chicago. It is surrounded by apartment buildings, hotels, and small business concerns—hemmed in on all sides except the east, where Lincoln Park and Lake Michigan stretch away to the north and the south. Population is continually moving into the area and just as continually moving out; there is no stable neighborhood community of which the school is a necessary, vital part.

Between 300 and 400 boys and girls from kindergarten through the senior class come each day from all quarters of the city. They represent many economic levels as well as differing nationalities and religions. Practically all students graduating from the senior class continue with some form of higher education.

The school maintains a large scholarship list in order that the student personnel may be as varied as possible. The greatest value is placed by the school upon this varied student body, each member of which has his own peculiar strengths and weaknesses. The faculty tries to find the abilities of each individual and so to encourage the strengths that success in this line will be a means of overcoming weakness. In the light of such a belief, the school gives no prizes, awards, or numerical grades as incentives to, or rewards for, academic work.

For its experimental work during the Eight-Year Study, the school did not single out a group especially gifted—every pupil in the high school was included in the new courses of study.

### THE SCHOOL AND THE AMERICAN TRADITION

During the Eight-Year Study and at the request of the Commission, the staff of the entire school, lower and upper, formulated a written statement of the philosophy of the school in its relation to the American tradition.

The following section, which is an excerpt from this statement, may convey some aspects of the spirit and purpose of the school better than would details of content and method.

*Philosophy of the School*

We of the Francis W. Parker School believe in the democratic way of life, holding that democracy gives to each individual the maximum opportunity for self-development and at the same time asks of the developed individual the maximum responsibility for the well-being of all.

The functions of the school in a democracy are threefold: (1) it interprets the dominant characteristics of the world around it; (2) it transmits to its students the cultural heritage of this environment; and (3) it points the way to further possibilities, in this society, for human development—physical, mental, economic, aesthetic, and ethical. . . .

However willingly and gladly we accept the school's responsibility to carry on the best in the American tradition, we do not endorse the principle that *all* the elements necessary for sound education are or can be derived from tradition. We hold that these valuable traditions of American democracy must be extended and enriched by new ideas and ideals; otherwise, education is caught in a trap of the past and, if so caught, cannot undertake its third function, that of pointing the way to further possibilities for human development.

We cannot here discuss in any fullness such new directions, but we can indicate some of our convictions concerning them.

We need to develop in America a society characterized by:

1. Vastly improved standards of living for all.
2. Opportunity for all normal persons to be employed in productive work.
3. The elimination of all exploitation of human resources as well as the conservation of all natural resources for the constructive use of society.
4. Cooperative planning.
5. Training for leisure.
6. Full opportunity for all to participate in the expression and enjoyment of the arts.
7. Substitution of reason and arbitration for force in the settlement of all disputes, domestic and foreign.
8. Such security for the individual as will enable him to meet,

in a constructive way, the challenges which come to him.

9. The application, whenever possible, of scientific thinking to the solution of the problems of the individual and of society.

Our desire for such a society requires us to envisage a better social order. We must modify those institutions which are not sufficiently responsive to human needs and human possibilities. We must create new ones to serve our needs. Colonel Parker, fifty years ago, pointed the goal when he said:

There is money enough, land enough, food enough, and work enough for all mankind. . . . There is no religion or government worthy the name which does not give to each individual the means of self-effort, the means of self-support, the means of gaining food and a livelihood, happiness, and freedom.

Within our school there must be definite procedures based upon these ideas. The highest development of individuality and character in every child is the goal of the school, not only because it is the way to personal freedom and happiness, but also because upon it depends the welfare of society. Therefore, in recognition of the responsibility involved in the exercise of democratic rights and in accord with our belief in the inherent worth of the individual, we hold that this school should make every effort to:

1. Achieve as complete an understanding of each child in the school as is possible, and help each individual to solve the social, academic, and personal problems which confront him.
2. Promote the principle of cooperation as an operating force within the school. The emphasis is to be placed upon such habits and attitudes as may be secured through social responsibility, freedom, and self-control.
3. Develop within the student body a sound understanding of law. While recognizing that we must at times obey laws with which we do not agree, and that there are other times when we must follow instructions we do not fully understand, we believe that it is most important to aim at an understanding of the value of law and at the respect which comes from understanding. The respect which comes

merely from authority tends to set a pattern for authoritarianism in government and servility in students.

4. Develop in students habits of self-analysis, self-evaluation, and discrimination. For the acquisition of such habits some knowledge of psychology is needed.

The school is deeply aware how difficult it is to present psychology in secondary education, and therefore it endeavors to find ways of discussing psychological problems in terms understandable to students in secondary schools.

5. Give to all students comprehensive and many-sided information relating to the world in which they live, and to the way in which it has come to be what it is, so that they may have an intelligent basis for their own judgments and actions. The activities of the school should be extended into the community and, conversely, the community activities into the life of the school.

Such a procedure will introduce into the curriculum controversial issues. The school not only admits but welcomes the consideration of controversial issues. . . . The freedom of the student to learn and the freedom of the teacher to teach are inseparable. . . . Freedom of inquiry leads to freedom to act on the results of inquiry.

6. Provide a changing and vital environment for children, with many age-level experiences in which the skills are a necessary and natural part. . . .
7. Encourage each student to develop deep and abiding aesthetic interests through active participation in the creative arts. . . . The students' experiences in all of the arts must result in whole concepts and not in isolated fragments. With such aims the school can help to produce citizens who enjoy and understand the creative arts.
8. Develop every situation which involves the free participation of young people in the exercise of democratic rights, the extent of such participation to be based always upon the students' knowledge and maturity. . . . To develop in students a willingness and a desire to use democratic processes, the school must provide opportunities for:
  - a. Student government.

- b. An uncensored newspaper.
  - c. Free assembly and free speech.
  - d. Cooperation of students and faculty in planning, directing, and evaluating school activities.
9. Help each student to live under a balanced, flexible school program which provides for proper distribution of class-work, study, organized and free play, opportunities to engage in individual and group activities, and adequate leisure in which to pursue special interests and hobbies. . . .
  10. Make it possible for each student to find some avenue of experience, some medium of expression or form of activity, through which he may obtain the satisfying inspiration which comes from success and from making his own significant contributions to his social group.
  11. Include within the student body representatives of various races, creeds, and social classes, in so far as that inclusion promotes the happiness and growth of the individual concerned.

While the statements in this philosophy represent the beliefs and aims which the school has evolved for itself in relation to the American tradition, we, the faculty, are more than willing to see every principle here enunciated fall to the ground under logical and convincing reason. In putting these beliefs into organized, written form, we do not wish, in any way, to compromise our attitude toward the truth by clinging to any statement here made when it is shown to be incorrect, or when something better is presented.

We realize that we must continue the search for higher goals and better ways.

#### NEW APPROACHES TO FIELDS OF STUDY

##### *Social Studies*

During the Eight-Year Study the social studies program has evolved from isolated elective courses to a six-year sequence required of all students. The reason for this change is that the school believes it imperative for students to understand, as fully as their maturity will permit, the concept of democracy. This in-



volves not only the basic ideas of democracy but also the long struggle of peoples to bring democratic institutions into being, the strengths and weaknesses of these institutions, the need for change, the ways in which change may be brought about, and the part personal responsibility plays in all democratic procedures and institutions.

If the principle of democracy is to be the basis of the social studies curriculum, the old history sequence has to be abandoned and a new approach has to be made to the study. The school, therefore, has divided the six-year sequence into two sections; the seventh, eighth, and ninth grades, which make a study of world history including the Orient; the tenth, eleventh, and twelfth grades, which use this world material as a background for a careful analysis of the development of democracy, political, economic, and international.

Within this framework of general ideas, the specific program for any given year is worked out by the teacher with the aid of the students.

The program has not been the same in its entirety any two years throughout the Eight-Year Study. The fact that the content material of the courses has varied from year to year may be evidence of two points: (1) that pupil needs have dominated the selection of material, and (2) that the curriculum is flexible enough to respond to rapidly changing world situations.

Certain minimum essentials, however, are attained each year in spite of shifting emphases. This is best shown by a summary which the principal of the school has at hand to use in helping him to place new students enrolling in the school who have not had the same kind of social studies background as the Francis W. Parker students. This summary applies to tenth and eleventh grades only, and is as follows:

*Tenth Grade.* Any student entering the tenth grade should be able to read social studies material intelligently, to organize such material in a generally acceptable way, and to use a library independently. He should have a rather general knowledge of world history—that is, he should be conscious of the long periods of human society which antedate his own and of the major contributions of these periods to modern society.

The work in the tenth grade itself varies from year to year—there has been, up to the present, only one unit which has been constant. That unit has two sections: (1) the philosophy of democracy, and (2) the development of political democracy (*a*) in Greece and (*b*) in the United States. The part of the unit which deals with political democracy in the United States is studied through a textbook, *America, Its History and People* by Faulkner and Kepner. The pages covered are 2–361. This unit includes, also, a detailed study of the Declaration of Independence and of the Constitution of the United States.

*Eleventh Grade.* A student entering the eleventh grade should be able to read difficult social studies material with comparative ease, to organize this material rather completely, to interpret graphs, maps, and charts, and to construct fairly accurate graphs, maps, and charts for himself. He should know how to use mature reference material in a library and should be acquainted with some of the more valuable material. He should be able to work with abstractions and to differentiate between a philosophical idea and a fact. He should have a fairly good understanding of the political history of the United States.

The eleventh grade curriculum varies from year to year, but there is one constant unit—that on the economic development of the United States or the industrialization of America. This unit is based on textbook material in *America: Its History and People* by Faulkner and Kepner, pages 385–551.

Has this kind of curriculum, based upon a concept of democracy, proved a handicap to those students who have gone to college and continued some kind of study in the more formal courses of political science, economics, history, etc.?

The records of the College Evaluation Staff for the Francis W. Parker students now in college show that in the field of social studies they have taken nearly 50 per cent more courses than the students with whom they are compared and have accumulated some 70 per cent more grade points in them.

This statement cannot be taken as evidence that every Francis W. Parker student has been successful in meeting college competition in social studies, but it may be taken to mean that the majority have suffered no handicap in pursuing a widely different curriculum from that of the former ancient, medieval, modern, and United States history.

How real for the student is this new content material? How

functional is his experience in the social studies classes? How immediate is it?

To draw a line between the results produced upon the student by the total atmosphere and setup of the school and by the particular experiences which he may have in any one field of academic study is, of course, impossible, for the student is the product of the school as a whole. Nevertheless, editorials which appear in the student paper, *Parker Weekly*, seem to show direct applications of thinking along the line of democratic procedures.

The *Parker Weekly* is an unsupervised publication—the articles are written by the students, the type is set by them, and the form is printed by them on their own press in their own shop. Not until after the weekly edition is off the press does the faculty criticize any idea which appears in it. The article here quoted is therefore unsolicited student opinion.

### *A Plea*

The educational policies [of the Francis W. Parker School] have been characterized [in the past] by the encouragement of free, liberal thought, and expression—the rights of every American.

Today, for perhaps the first time, the tradition of liberalism at Parker is being threatened. The incessant outbreaks, in one disgraceful form or another, against an organization that is, under Parker's progressive policies, immune to attacks, are manifestations of mob hysteria that is sweeping this country—a hysteria that we, as scholars, are supposedly above.

It must be realized by the somewhat infantile factions in the school that, under the Constitution of the United States, the policies of the school, and every existing democratic ideal, the persecution of a minority organization is contrary to every principle, every idea, of the American Way.

Parker's chapter of the American Student Union is somewhat boringly dubbed as Communistic. Even an offhand, sketchy review of facts shows this to be slightly unreasonable.

However, my purpose in writing this editorial is not to defend the A.S.U., but to beg of Parker's hotheads to go easy and remember—remember that this school is a miniature United States, with all of our country's problems. We must remember this and bear well in mind the principles of democracy—Freedom and Tolerance.

Another bit of evidence of the application of democratic thinking comes from this same newspaper but from a different angle. In the winter of 1940 the Student Government suggested that all school publications be put under its control. The staff of the *Parker Weekly* was filled with consternation and at times unbridled wrath. One of its most oft-repeated arguments against such a move was that a free press is absolutely essential to a democratic society, and that as soon as government takes over the control of the press—at that moment the press becomes a tool of government. There is, therefore, but one way to have a free newspaper in the school and that is to keep it out of the hands of Student Government. The paper has remained its own master up to this date, October, 1940.

From quite a different point of view comes evidence of another kind. Since 1912 the school has had a Toy Shop, operating for two weeks in December. In this shop are made toys which are distributed by many of the hospitals, settlement houses, and public schools of Chicago.<sup>1</sup> However, until 1937 the students had had little firsthand information of the areas into which the products of the Toy Shop were sent. With every student in the secondary school a member of a social studies class, it was possible, in 1937, to institute a series of excursions to the various institutions that distributed the products. From this beginning, a definite project for the study of neighborhoods was started by the junior class of 1939 as part of its social studies curriculum.

The class divided into six groups, each group spending five Saturdays working through one of six Chicago settlement houses: Hull House, Chicago Commons, Northwestern Settlement, Association House, Henry Booth House, and Newberry Center. Each student prepared a report of his work. One or two reports from each group of six were sent to the settlement house that guided the group in its work. The following letter is in reply to the receipt of such reports:

I have read the papers of X and Y with a great deal of interest. It seems to me that these are really unusual for high school juniors. In fact, they grade well above college freshman work as it was when I

<sup>1</sup> Mr. Leonard W. Wahlstrom, head of the Manual Arts Department of the Francis W. Parker School, is the father of the Toy Shop idea.

went to college years ago. Perhaps our children are smarter than we were.

There are, of course, minor errors in fact, including a few places where it is obvious what the author meant to say but did not state clearly. What interests me most is the social viewpoint expressed in both papers. If Francis Parker turns out graduates who have such an awareness of socioeconomic problems—and who keep it throughout until they become persons of influence—the school is making a real contribution.

Such situations as have been described in this account of social studies changes could not have existed under the old history curriculum of the pre-experimental days.

### *English*

The main developments in the English field have been along the following lines:

1. A closer relationship between the social studies and English work. This has not necessarily meant a closer chronological parallel; it has rather been a developing understanding of the underlying relationship between the literary material and the characteristic patterns of the society in which the literature was produced.
2. A growing recognition of what literature can contribute toward a deeper and broader understanding of human behavior. In this field the English Department has worked very closely with the psychology teacher.
3. Emphasis on more extensive reading by the students. The development of a course in world literature in the twelfth grade has grown out of this wider scope in reading.
4. Development of a more systematic approach to research problems. This has been carried on by the long theme projects which occur during the high school course.

The ninth grade course has begun with a unit on Mythology, Legends, and Folk Lore. This provides opportunity for a discussion of many questions being asked by the students:

What were the beliefs and aspirations of the people of ancient times and of the Middle Ages?

What were their concepts of the beginning of the world, of good and evil, of man's place in the universe?

How have human needs been met in different periods?

Further, it has laid a basis for considering methods of story-telling, foreshadowing, and probability in tales.

Next, the ninth grade has made use of literary material which would give a richer picture of the Middle Ages: the ballad, the simple construction and rhythm of which capture the interest of ninth graders; Chaucer, parts of which are very colorful and lively; and occasionally a historical novel. Though historical novels about the Middle Ages, the French Revolution, and the Industrial Revolution have been read by the group with profit, yet we have not confined ourselves to novels of this type. Any novel may be chosen which offers challenging materials on those human problems which are of absorbing interest to students at this age and maturity level.

At this point it seems well to describe the long theme, though this is also used in the tenth, eleventh, and twelfth grades. The objectives remain the same; only the quality of work, complexity of the subject, and breadth of field develop at each grade level. The class usually devotes six weeks to this project, with almost all the English periods being spent in the library. In this way the teacher can work with the students very closely, having an excellent opportunity to observe their habits of study and research and give help to those who need it. The long theme is begun with work in class on making a bibliography, taking notes, making an outline, and using footnotes. This procedure has been carefully worked out by Mrs. Elizabeth Payne in her pamphlet *Directions for Writing a Long Paper Based on Book Material*, a copy of which is purchased by each student. Along with this preparation the teacher has conferences with individuals to determine what he or she will choose as a topic. The choosing of topics is usually restricted at the ninth grade level to one historical period—e.g., the Renaissance—but as the students improve their skills and are able to handle increasingly difficult material, the range of possible subjects becomes broader. In some cases the results of the research have been written up in play form, in another case in the construction of a model Elizabethan stage.

In the tenth grade the English course has developed around a study of American Life and Culture. As this is the grade in which the high school students begin their study of American history, there is a broad correlation between the two fields. One group began with a study of Chicago. The students were challenged to observe the city more accurately and with greater understanding of the wide variety of forms of living and working in a metropolitan area. These they wrote about, at the same time finding out what impressions of Chicago were given in the writings of such men as Christopher Morley, Albert Halper, and Carl Sandburg. They also visited the Chicago Artists' Show at the Art Institute and discovered how painters have interpreted Chicago.

This was followed by a study of Regionalism in American Literature. Such questions as the following were raised in connection with the books read:

How do the physical, social, and economic aspects of the region affect the lives of the people?

Is the story true of the region about which it is written and of no other region? If so, why?

What special characteristics of the region are used as an essential part of the story?

Is the story concerned with the really vital aspects of human life or is it merely decorative?

Propaganda Analysis has at different times formed a unit of study in the tenth, eleventh, and twelfth grades. The publications of the Institute for Propaganda Analysis were used. Newspapers, advertisements, radio, and moving pictures were all studied. An analysis was made of Hollywood attitudes toward love, friendship, crime, etc. The influence of financial control was studied in connection with each of the avenues of communication. Children's radio programs were analyzed for their educational merit. Archibald MacLeish's *Fall of the City* showed how a poet could use the radio in an effective way. In one class the pupils made a study of propaganda in the school: in the school paper, the morning exercise, dances, classrooms, etc. They published the results of their investigations in mimeographed form for the whole school.

Authors and Problems of the Nineteenth Century, especially in Victorian England, was chosen as the central theme for the eleventh grade. In this grade the students chose an author a month, a development from the book a month in the tenth grade. Background material was given by the teacher, using such books as Lytton Strachey's *Queen Victoria* and Lawrence Housman's *Victoria Regina*. While this background was being given, each student was choosing, in consultation with the teacher, what author he would study. Having made his choice, he read at least one book by that author and acquainted himself with the author's life, looking for relationships between the two. This reading was either reported on orally for group discussion or in written book reports. The discussions centered largely around questions of human relations, using the approach described by Louise Rosenblatt in *Literature as Exploration*. These discussions branched out into questions of style, the relationship of form to content, and the larger relationship of art to society.

International Literature was chosen as the center of the twelfth grade work. The procedure followed in the eleventh grade in the choice of books and method of reporting was continued in the twelfth grade. However, here the students chose to report either on the literature of one country or on an important theme in the literature of several countries. The discussions centered around four major themes: war, conflict of "left" and "right," social satire, and family relationships. Such novels as *The Magic Mountain*, *Crime and Punishment*, *War and Peace*, *Pelle the Conqueror*, and *Pere Goriot* were read and reported on, either individually or in panel discussions.

One year the twelfth grade decided to make a movie. After having discussed the movie as an art form the class wrote a scenario on the theme *Even Now*, a film using documentary material but emphasizing the relation of people of the students' age and generation to world forces, especially fascism. A committee on finance was set up with a budget of \$50.00. It was decided to have a sound track (recordings were used for this), which was strongly influenced by such documentaries as *The River*, *The Plough That Broke the Plains*, and *Spanish Earth*. Committees were also set up on photographs, props and sets, music,



words, and lighting. Though the results were not in every case as satisfactory as the students had hoped, they felt it was a very stimulating experience and a fitting close to their years at Parker.

This is not, of course, a description of all the work carried on by the English Department, but rather that which developed because of the general experimental program. To have created a rigid, new course of study during the years of the experiment would seem to us to negate the whole spirit of experimental work. What we have done, as presented here, is to explore new possibilities in English teaching and to understand and apply wider and deeper concepts of what the teaching of English can mean in the growth of adolescents.

### *The Motion Picture Project*

The participation by the school in the two-year experimental period of the Motion Picture Project, Commission on Human Relations, is interesting as an example of the way a private experimental school can contribute to public education.

A member of the staff, while attending the summer workshop at Bronxville in 1937, became acquainted with this project, which seemed to him so significant that he asked and received permission from the chairman of the Commission, Dr. Alice V. Keliher, and from the principal, for Francis W. Parker to be one of the 20 schools in which it was planned to experiment with the use of these films. The Commission contributed about two-thirds of the money costs and deposited at the school all the films then available. These films are short cuttings from commercial moving pictures, running from 5 to 32 minutes, edited to provoke discussion and study of human relations. After showing a film to the class a free discussion takes place, in which an attempt is made to help students deepen and clarify their insights into human motivations and behavior and to discover, if possible, better techniques for human relations. In many cases information is needed in addition to the exchange of understandings by the students; this may be sought in the library, lectures, museums, field trips, personal interviews, etc. Because all the students have a common emotional and intellectual experience, they

come to the discussion which follows with a powerful motivation for examining human lives and actions.

In the case of the Francis W. Parker School, the films were used widely in the English and social studies classes of the eleventh and twelfth grades during 1937-1938 and 1938-1939.

At the conclusion of the two years the Commission felt that evidence for the value of the project was clear, and 57 "shorts" have, for a year, been made available to all educational agencies who care to use them; they are being so used by many public school systems, colleges, church groups, labor unions, etc. During the past three years, staff members have given freely of their time in conducting demonstration classes and conferring with teachers and discussion leaders on problems concerning the best uses of the films. In 1939 one staff member left the school to take a full-time position with the Commission to help prepare teachers in this way.

A more comprehensive statement on procedures used in the Project may be found in an article, "The Discussion of Human Relations Through Films," by James P. Mitchell, published by the Progressive Education Association, and circulated by College Film Center, 59 East Van Buren Street, Chicago, Illinois. This article was written for the Commission on Human Relations, but it reflects in the main the results of the experiment at the Francis W. Parker School. It is interesting that a whole book on "discussion" is planned by the Commission. This book also will use almost exclusively the Francis W. Parker records, with all identities, of course, carefully disguised.

### *The Arts*

Since the founding of the school its curriculum has concerned itself with the arts. Creative experiences in metal, wood, paint, and clay, along with musical experiences in singing, playing, and listening, have given all students a rich and varied background. With the elimination of college requirements as a part of the Eight-Year Study, the faculty was quick to realize the increased opportunities for experimentation in all art activities in the school. Early in 1932 the faculty, discussing the possibility of entering the experiment, expressed a "belief that aesthetic creation and

appreciation should not be reserved for the few who possess great talent, but may well be a part of everyone's experience."

Two periods a week in every student's program were set aside for art appreciation and music appreciation. These two classes were scheduled in addition to the regular studio activities, chorus, and orchestra. The original plans indicated a close correlation between these arts and the social studies and English. The study of a certain period in social studies seemed to call naturally for the study of the same period in English, art, and music. It became apparent as the work developed that this was not feasible; hence the time correlation plan was abandoned in favor of a broad interpretation of the arts, which utilized the students' experience in all other fields.

An excellent illustration of this policy is a mural, designed and painted by a high school student over a period of two years. He, with the help of three or four others, executed on the walls of a corridor a history of education from the time of primitive man to that of Colonel Parker and John Dewey. The mural shows a high type of integration of students' knowledge and experience expressed through the arts.

Students visited local painters' studios and discussed with them the artist's point of view toward his art, how many things he sold in a year, and the place of art in the modern world. They learned something about the artist himself, how and where he lived, and what his ambitions were. Many discovered that the artist was a real person, not the long-haired eccentric they had believed him to be.

As a result of these informal visits conducted during regular school hours, a small gallery was started within the school building. Students selected a group of pictures from those available in the artists' studios and placed them on the walls of the room set aside as a gallery. They wrote critical articles on the exhibition for the school newspaper. The rest of the student body was intensely interested in the quality of the work.

In music, student interest centered on Chicago's musical events and in Chicago's musical organization. One class was divided into committees which were assigned to visit the heads of the various musical organizations in Chicago. Information was gath-

ered from the Chicago Symphony Orchestra, the Illinois Symphony, the Businessmen's Symphony, the Women's Symphony, and the Chicago City Opera. Class discussions brought out questions to be asked: How is the organization supported? Where does it get its members? Does organized labor present any problems? What audience does it reach? The committees were cordially received by the managers and most of the questions were answered to the students' satisfaction. In some cases the committees were shown the stage, dressing rooms, costume rooms, musical libraries, and other points of interest.

The emphasis in these music and art classes has been on listening to music and looking at pictures, with discussion centering around these activities rather than upon biographical facts and historical data. More and more use of the Carnegie collection of records has been made by all teachers. One unit of a French class was built around Gounod's *Faust*. At times it was impossible to say whether this was a music class or a French class.

One of the most important results of the school's participation in the Eight-Year Study has been the increased emphasis upon all the arts. This has been particularly noticeable in changes in the schedule giving the arts more advantageous periods in the day. The enthusiasm of students and faculty for art activities gives more dignity and importance to the arts. There is an increasing realization of the degree to which other media than words can be used as a way of learning in all classes.

The Commencement program of the class of 1940 was an instance showing the increased acceptance of nonverbal contributions. There had been some difficulty in choosing a commencement speaker. After much discussion the suggestion was made that a major musical work be used in place of a speech. Almost unanimously the class voted for Beethoven's *Appassionata Sonata*, Opus 57, as its commencement speech.

### General Science and Biology

Nature study has always been an important part of the Lower School curriculum and is taught by a science specialist, who gives from 2 to 6 periods weekly to each grade. In the eighth

grade a more formally organized course in the physiography of the Chicago region has been taught for many years. Before the Eight-Year Study began, general science in the ninth grade was being revised, for too many topics were treated in a year's time to make the experience of real value. The content of the course varies from year to year, depending upon the interests and understandings of each group, but most frequently concerns the earth and its relationship to other bodies in the universe, elementary weather science and the climate of Chicago, food science, the body in health and disease, the use of water, steam and exploding gas, elementary electricity, and famous names in science.

Until we entered the Eight-Year Study general science was offered as a 7-period elective, and enrolled about 50 per cent of the ninth grade. On our entry into the experiment it was required of all freshmen, but the number of periods was reduced to 5. Increasing difficulties with the homework problem and the addition of new courses seemed to warrant a still further modification of the requirements. Students must now choose between a full 7-period course and a 3-period course according to their interests, abilities, and academic load.

The tenth grade biology course has been offered as an elective 7 periods weekly the full time of our participation in the experiment. Earlier it was our intention to require a science in all four years of the high school, but the pressure of other responsibilities made it unwise to do so.

In both general science and biology practically all the written work has been done in class, and much time has been given to individuals who needed special help—the faster as well as the slower members of the group. Two extra periods designated as “leisure periods” have been carved out of the weekly schedule for students who want to spend more time in the laboratories and studios, and many science students avail themselves of this extra time to prepare experiments for the regular classwork or to work with laboratory equipment for their own pleasure. The laboratory is well equipped with charts, models, and experimental apparatus of all kinds, some 135 textbooks, reference books, semipopular books on various sciences, and science magazines.

Field trips and excursions have always been an important part of science in the school. Since 1932 each general science and biology class has taken at least 5, and sometimes as many as 8, trips to museums, weather and astronomical observatories, zoological parks, conservatories, aquariums, forest preserves, and industrial plants. In the field of visual aids much experimental work has been done with silent and sound films and slides. The number of films shown varies from 6 to 10 each year.

For the first time in many years an advanced biology course was offered last year. The students helped to plan the work from the very first, deciding that they wanted more information and laboratory experiments on heredity, bacteriology, human physiology, and animal dissection, all of which tended to make the course more practical and more satisfactorily adapted to their needs. Their interests in their community and its resources resulted in an unusual number of field trips and excursions—the Field Museum, the Shedd Aquarium, the Medical Exhibit of the Museum of Science and Industry, the International Live Stock Show, the Annual Flower Show and State Art Exhibits, the Trailside Museum and Forest Preserves, the Chicago Department of Health, the Grant Park Hospital for cancer research, the Children's Memorial Hospital, Lincoln Park Zoo, Lincoln Park for bird study, and the Natural History Museum for instruction in taxidermy. The Department of Health tour provided an exceptionally fine experience, showing how the cooperation of various city departments results in safety for the citizens. The group was overly critical of the bacteriological techniques they observed (as compared with their own laboratory work), and scathingly cynical of the "lazy and indifferent attitudes" of the department employees—all of which made a fine approach to a study of labor conditions, unemployment, and vocational training.

#### INSTRUMENTS OF EVALUATION

During the Eight-Year Study a wholly new set of methods has been employed by which the factual information, attitudes, beliefs, and scientific thinking of the students have been checked. These instruments of evaluation have been used to guide and

shape the experiment as it progressed, not to estimate its success. Least of all have these tests been used to determine relative academic success among the students.

"Evaluation," as the faculty of this school understands it, is the attempt to show growth or change as well as present status. By repeating variations of a single test at specified intervals, teachers have been able to ascertain changes in attitudes, shifts in interest, etc. On the other hand, the giving of single tests has helped teachers to estimate the present status of a student and of the group as a unit.

In general, the instruments used have been of four types: (1) anecdotal records, (2) paper-and-pencil tests (prepared by the Evaluation Staff), (3) the neutral observer, and (4) the planned conference.

### *Anecdotal Method*

For a period of two years the anecdotal method was used to collect data and to supplement the other types of evaluation. On a special printed form, teachers listed their observations and interpretations of pupil behavior in and out of the classroom. As this device was used only briefly the findings were incomplete, though during that time teachers found it useful in directing attention to incidents of child behavior that seemed to be of psychological significance. It helped them also to follow development and changes in pupil attitudes and interests over a period of time. Furthermore, it gave them a clearer conception of the kind of child behavior which each teacher characteristically observed. For example, some persons tend to record only negative incidents, while others report only the positive. The keeping of these anecdotal records helped teachers to a better understanding of their pupils and of themselves.

### *Paper-and-Pencil Tests*

These tests, worked out by the Evaluation Staff of the Eight-Year Study, were used more consecutively and consistently. The results may be summarized in a very general way as follows:

1. Students tend to show the highest *interest* in social studies and reading, and seem to be least interested in physical science

and manual training (Interest Questionnaire, 8.2a). So in spite of their many nonacademic activities and their general enjoyment of art and music and such projects as Toy Shop, the fundamental pattern of their interests is highly verbal.

2. Students' *beliefs* about democracy, race, labor, and unemployment (Scale of Belief Tests, 4.21, 4.31, 4.11, and 4.12) are highly liberal and consistent. They are least liberal in the field of economic questions, where they show also less consistency and certainty. From grade to grade, students seem to become more certain in their social beliefs, and in the field of labor and unemployment their beliefs get significantly more consistent.

3. The principles of science and logical reasoning (Application of Principles in Science, 1.3a; Problems Relating to Proof, 5.1; and Application of Principles of Logical Reasoning, 5.11) are ably applied to new situations. In their ability to draw conclusions and to understand indirect arguments, these students rate the highest of all groups tested by the Evaluation Staff.

4. The pattern of reading (Reading Records; Critical-Mindedness in the Reading of Fiction, 3.7), as one would expect, gets more mature from grade to grade. Year for year these students read more maturely than other groups.

5. Courses of action chosen by the students (Social Problems, 1.41 and 1.42) tend to be very highly democratic. Grade by grade there is less and less tendency to rationalize courses of action. Most significant is the ability of the students to see the far-reaching implications of their courses of action—shown also in their ability to relate fiction to real life.

6. Students show a slight tendency to underrate rather than overrate the significance of data (Interpretation of Data, 2.5, 2.51, and 2.52), yet on the whole they are very able to interpret data correctly.

### Neutral Observer

A third type of evaluation which the school has used may be termed the "neutral observer." This sort of evaluation has functioned in two different ways:

1. A specialist in the given field has come into the school for a period of three or four months, has worked with students and



teachers, has devised means of his own for evaluation, and has then reported on conditions and situations as he found them.

Dr. Bruno Bettelheim's work is of this kind. For several months of the school year 1939-1940, he worked within the Art Department of the high school. Later he made a report ending as follows:

The conclusion would be that the school curriculum was successful in not imposing personal opinions on the students but in giving them a real chance to develop an original and genuine understanding and appreciation of the arts in accordance with their own individual personalities. Further, the instructors have succeeded in opening up to the students the real value of art in all its greatness and richness.

2. The "neutral observer" was used a little differently in the Motion Picture Project.

The discussion after each showing was carefully evaluated as follows:

- a. A verbatim record of every discussion was made by an expert stenotypist. These records were analyzed by teachers, a psychiatrist, and a psychologist for information on technique of discussion, leadership, evidences of growth or maturation on the part of students, the difficulties and dangers which might be involved in the approach, etc. A forthcoming book on discussion, planned by the Commission, will consist largely of these Francis W. Parker records with all their identities, of course, carefully disguised.
- b. At the early part and at the close of each year, a Survey of Problems in Human Relations was taken as a test.
- c. Students wrote their own evaluation. Samples of their writings are included in the catalogue of the Commission, *The Human Relations Series of Films*.
- d. Teachers not primarily concerned with the film experiment were asked for evaluation, which in the main was favorable. So it is evident that ideas emerging from the discussion were later developed in other classes, in home situations, in writing, in art, etc.

So this phase of the experiment and its evaluation has become already a distinct contribution to public education.

### *Planned Conference*

A fourth type of evaluation is the "planned conference." These conferences are of teachers with teachers, of pupils with teacher, and of parents with pupils and teachers. Whatever the personnel of the group, the attempt is to measure, in some degree, pupil growth or lack of growth. It is the behavior of the student in a given circumstance of a series of circumstances which is used as the measuring rod. This means of evaluating growth is personal, but it never depends on the judgment of a single individual—it is always a composite judgment. It assumes sufficient pupil-directed activities within the school for the staff to have numerous opportunities for observation, and ample incentives for meetings of parents, pupils, and teachers—in other words, projects which use the community, the home, and the school.

The Francis W. Parker School Toy Shop is an excellent example of such a project—a project planned to include pupils, parents, staff, and community. In the numerous meetings held previous to actual work in the Toy Shop, in the shop itself, and in the community situations which arise in the distribution of the Toy Shop products, there are numerous situations in which pupil growth may be observed and tested. Because from year to year the pupil turnover is slight and the situations similar, this measuring device reflects growth over long periods of time.

### CONCLUSION

Since the foregoing reports consist in a detailed explanation of only some of the ways in which the school used this opportunity for experimentation in the years from September, 1933, to October, 1940, a brief summary of the work of these years may be useful.

From a rather meager beginning in 1933, the experiment expanded until in 1940 it included:

1. New content material in the fields of social studies, English, the arts, sciences, and some of the foreign languages, with pupil-teacher collaboration in the selection of some of this material and with the checking of the selection of ma-

terial so made against individual pupil needs and basic human needs.

2. The introduction of a new field of study, psychology—this for purposes of pupil guidance as well as for its own value as a field of study.
3. A wholly new set of evaluation methods by which the factual material, attitudes, beliefs, and scientific thinking of the student may be checked.
4. The stressing, in each field of study, of the underlying principles which are common to all or to a group of the fields, thus producing an integration or unification of intellectual and social experiences which is more continuous, thorough, and vital.

The first purpose of the Eight-Year Study was to discover whether the member schools could carry out their own educational program unrestricted by the usual requirements of points and examinations without placing their graduates at a disadvantage academically in their college work. On the academic success of students graduated from the Francis W. Parker School during the experiment, the statistics of the College Evaluation Staff seem conclusive. The grade-point average of these students was higher than that of the group of similar ability with whom they were compared. They certainly were not unprepared for college courses.

Their characteristics in other respects are summarized by the same Committee:

They rank high in social graces, very high in social consciousness. They seem for the most part well informed concerning current affairs. They hold mature views upon education. They talk easily and well about these views. They seem to have, or to desire to possess, a sense of direction for themselves both in college and for after college.

All of them are enthusiastic about their training at Francis W. Parker—years of “happy, practical, and vital” education.

As to the school itself, the unification of the school within itself and with the community is now marked. The boys and girls seem to have a genuine and generally diffused interest in ideas, and that interest is never merely theoretical. They auto-

matically relate everything that they see or hear to its effect on human beings. Also, as a matter of course, they consider the social effect of what they themselves might do in later life as well as the promise which different careers hold out for their own individual prosperity.

These young people also tend to use in every possible connection all the information that they have acquired. They may have no greater quantity of information than others of their age, but they let little of their intellectual capital lie idle. So, although their education has been intensely personal, their attitude toward new information is seldom simply to accept it or to reject it; they tend to examine it critically, to scrutinize its implications, and to weigh it by comparison with everything else that they already know. Least of all are they likely to regard information with indifference as something to be memorized for examination purposes and then forgotten.

These characteristics certainly help the graduates of the Francis W. Parker School to do well in college; but, more than that, these characteristics help to make of the graduates extraordinarily sincere, active, and interesting young people.

■

# THE FRIENDS' CENTRAL SCHOOL

OVERBROOK, PENNSYLVANIA

Friends' Central, founded in 1845, by Benjamin Hallowell, is a country day school for boys and girls from nursery school to college. It was originally situated in Philadelphia but moved in 1925 to its present location just beyond the city limits, though still within easy commuting distance of the city and the surrounding suburbs.

Five buildings and many playing fields are located on the 22 acre campus. The Upper School building is the center of school activities, and in addition there is a Lower School building, a science cottage, an art studio, and a gymnasium. In accordance with the policy of the Society of Friends, children from all religious faiths are included in the student body, which has an average enrollment of 450. Approximately 76 per cent of the graduating class enters college or junior college. Others pursue their education in vocational schools or enter business directly from high school.

The school is a nonprofit organization, supported by tuitions ranging from \$150 for the beginning grades to \$425 for the high school classes. A small endowment augments this income.

## *Democracy, Quakerism, and Progressive Education*

It is our belief that the three ideals of democracy, Quakerism, and progressive education, and the way of life implied by them, are basically related to one another. What are their fundamental common denominators?

First and most important is the recognition of the individual as one who possesses unique qualities and inherent worth. This is in the Bill of Rights; it is the basis of the Quaker testimonies, which consider the divine or sacred element potential in each human being; and it is recognized by educators who are now attempting to plan school life to meet individual needs.

In order that this may be possible, all three concepts recognize

that individuals must live in harmony with one another, must unite in common enterprises for the purpose of serving the general welfare. Therefore responsibility for one's neighbor, helping others to obtain the conditions requisite for a fruitful and significant life, is the second common denominator of these three concepts.

Dr. John A. Lester has stated that the Quaker school has a function in the national scheme of education because "Young people want schools which are realistically religious; they seek a religion that will work."<sup>1</sup>

The philosophy of the Society of Friends has a far-reaching influence on the way of life at Friends' Central. Simplicity, directness, and respect for the personality of every individual are expected from all members of the school. At the weekly Friends' Meeting, school activity ceases and every boy and girl has time to think about his very personal and inner problems. Religious instruction at appropriate grade levels is a part of the curriculum, but more important is the spiritual atmosphere of the school.<sup>2</sup> All areas of school life—the classroom, the assembly, and extra-curricular activities—have been explored for their possibilities of meeting individual needs, of developing both a concern for society and of habits of cooperative service. The dynamics for this type of education is the recognition of individual and social needs in the search for a "religion that will work."

### *The Development of the Enterprise*

At the beginning of the Eight-Year Study, our plan for the upper three classes of high school was to consider social studies as the core subject to which other areas would contribute. English was to become a part of the social studies program, with some of the literature selected to illuminate various cultural periods in history. History was studied chronologically, covering ancient civilizations and medieval Europe in the tenth grade,

<sup>1</sup> John A. Lester, *The Ideals and Objectives of Quaker Education*, Friends Council on Education, 304 Arch Street, Philadelphia, p. 12.

<sup>2</sup> Two articles by Richmond P. Miller, the director of religion at Friends' Central, discuss these points more thoroughly: "Religion in Our Schools," *The Friend*, First Month 11, 1940, and "Quaker Schools and Religion," *Friends' Intelligencer*, First Month 20, 1940.

American culture in the eleventh, government and modern problems in the twelfth. Among the procedures which represented changes from the past were the use of many books rather than reliance on a single text; an emphasis upon the individual and group project method, instead of upon the question-answer type of recitation; a flexible student program which would permit opportunity for work in other departments; talks and discussions with authorities in various fields; and a greater use of the community through the medium of field trips and off-campus activities.

This new combined course, hereafter called the "Enterprise," met ten periods a week with teachers of social studies and English. When the Enterprise program was extended to an increasing number of class groups, certain mechanical difficulties minimized the opportunities for a close collaboration between the teachers, and it was no longer possible for two instructors to be with any one group at the same time. The English Department confronted the problem of finding sufficiently interesting literature, comprehensible to the students and related to the historical periods they were studying. Tenth grade students, we soon found, did not thoroughly understand Greek drama. The Elizabethan period, on the other hand, offered a wealth of material deserving a long period of classtime, but was not as significant to the Social Studies Department. We became convinced that our objectives of developing social sensitivity and active participation were not being adequately served. We had been clinging tenaciously to what we knew and understood best, the transmission of familiar content. Rather than give up our objectives, we decided to create a course of study which would focus on these most important aims. For that purpose the teachers of social studies and English attended the Bronxville Workshop in 1937 to plan an integrated course for the twelfth grade.<sup>3</sup>

The strictly chronological approach to history was replaced by the topical method because the latter was judged more adaptable for integrating various viewpoints and materials, more flexible in response to students' needs and genuine concerns, more thor-

<sup>3</sup> For a description of this course, see "The Friends' Central Program," *Social Education*, April, 1938.

ough in its analysis, and more promising for the development of logical thinking. Units were developed cooperatively by the Social Studies and English Departments on such topics as Vocational Guidance, War and Peace, Standards of Living, Minority Groups, and in the following year on Dictatorships and Democracies, International Literature, the Drama and Social Problems, and several others.

We became aware that our emphasis was being placed almost entirely upon the individual's responsibilities as a member of society, and consequently we took a decisive step the following year to meet more personal needs of the students. To the combined course replacing conventional social studies and English were added units in Human Relations comprising one-third of the total program. The director of the Nursery School, a trained psychologist, joined the staff of the Upper School to supervise this work. The senior class was divided into three sections, which rotated among the three teachers.

The work of the new units in Human Relations consisted of observation and apprenticeship in the Nursery School; discussion of films prepared by the Commission on Human Relations; reading of such texts as Overstreet's *About Ourselves*<sup>4</sup> and Keliher's *Life and Growth*,<sup>5</sup> plus novels, plays, and stories presenting personal and family problems; field trips and other off-campus activities selected for their practice and experience values. Continuity of experience for the students was maintained by frequent conferences among the teachers, and by careful study of records and reports of student interest and achievement. The three divisions of the class also met frequently as one group to hear a lecture by some authority or for informal discussion.

The main features of the senior program have been extended to the junior class and in a modified form to the tenth grade. The importance of the Enterprise lies in its value not only as a separate strand in the curriculum but also as an influence upon both teachers and students in other grades and in other subject fields. It has led to a general recognition of the need of: (1) planning for the individual, (2) developing student responsibil-

<sup>4</sup> Harry A. Overstreet, *About Ourselves*, Norton, 1927.

<sup>5</sup> Alice Keliher, *Life and Growth*, D. Appleton-Century, 1938.



ity, and (3) promoting social sensitivity in preparation for effective citizenship. Developments toward these goals in every area of school life will be presented in the remainder of this report.

#### PLANNING FOR THE INDIVIDUAL

##### *The Guidance Program*

Considerable progress has been made in the field of individual guidance of the pupils. Formerly the school attempted to see that each child received individual attention and counsel by centering the responsibility in the home room teachers. It became evident that this system had its disadvantages. The home room teachers, busy with a full schedule, found it difficult to become well acquainted with the students in their care. There was also the disadvantage of having to become acquainted with a group of new students each year, as the children spent only one year with each home room teacher.

In order to facilitate the better use of data about each individual and to establish a degree of continuity of relationship between the child and his advisers, a plan was evolved whereby two teachers were relieved of half of their academic schedule, devoting the other half to guidance and personnel administration. Both guidance counselors endeavor first to know each child well and to coordinate all materials and information concerning him. They then present these materials to the subject teachers, and are chiefly concerned with facilitating the best possible adjustment for the child while he is under our care as well as with offering advice concerning his future plans, whether they relate to college or to vocations.

To acquire a picture of the student, many types of records have been helpful. Conference notes are recorded after an interview with a student, a faculty member, or a parent. Anecdotal reports on disciplinary infringements are recorded on a special form. Another form has been devised to include information about parents, student behavior, and whatever guidance has been thus far attempted. Scores on aptitude tests, P.E.A. Tests, plus a personal questionnaire, a health record, and the periodic re-

ports from the subject fields, furnish the balance of information to the faculty. From these data, case histories are being compiled.

To act upon the information acquired and circulated, small groups of faculty members meet from time to time. Meetings have been called to discuss those students who are having difficulty with personal adjustments, and those who either are entering the school for the first time or are going to have a different teacher.

We need a great many things to complete the program—more records of creative efforts, and notes concerning the type of work a student does in class and in his community, as well as information from the various teachers to indicate his strengths and weaknesses, significant experiences, and attitudes toward his school and classmates. We anticipate that progress will continue to be made in making more effective summaries of individual development and in making them more available for teachers.

### *Health Education Stresses Personality Development*

The manner in which an instructor occasionally changes the entire content of a course to meet the real interests and concerns of students may be illustrated by the replacement of a minor course in health education by one designed to provide a consideration of factors involved in personality development. "Having taught the tenth grade girls for two years previously," writes the instructor, "I was aware that they could derive more benefit from a study of their own personal problems than from technical accounts of circulation and digestion."

The girls submitted questions about anything they wished to know concerning the areas of manners, changes in bodily growth, dress, relations with boys, etc. Cosmetics were studied under the microscope and correct application demonstrated. The subjects of budgeting allowances, petting, smoking, drinking, dating, were all treated with a frank and sympathetic analysis. Some of the questions submitted by the students are included to show how important they are:

Do boys like girls who throw themselves at them?

Does it pull down your reputation to go out with a boy who has a bad reputation but who has been nice to you?

If you are out with a crowd in a car and the driver is going very fast and the others are enjoying it, but you are worried, just what do you do in order not to spoil the fun of the others and at the same time have peace of mind?

What are some excuses to give to boys when it is impossible to go swimming?

How can you go about meeting a certain boy without seeming to be a flirt?

If a boy wants to neck, what should the girl do or say to prevent it?

Should a sixteen-year-old girl be required to tell her parents where she is going every time she has a date, if she has agreed to be in by a certain time?

How should you answer the telephone?

How old should a girl be before she starts going out with boys?

How should formal and informal invitations be written?

How should sitting at a table be arranged?

### *A Biology Course Is Revised*

The ninth grade biology course includes four large units of work: (1) Functions of Living Things, (2) Advance in Care of Health, (3) Heredity, (4) Social Aspects of Biology. Before study of unit one, a preliminary period of orientation takes place. Since no general science course has preceded the ninth grade, it is necessary to spend several weeks getting accustomed to vocabulary, laboratory work, science books, and observations. The relationships between living and nonliving animals and plants, organs and organisms, and their characteristics furnish interesting material to study. From the characteristics of living things, it is an easy and logical step to the study of their functions.

Laboratory reports follow a paragraph type of account. Although specific questions are asked, the report varies with the individual student. No laboratory workbook is used. Each stu-

dent may choose his experiments from a list of pertinent exercises. Sometimes an experiment is worked by a group of three or four students, who submit a joint report. Laboratory reports may take the form of a research survey of the health habits and health records of the school group, or of a county or township. This type of report gets the student into outside areas. Other reports make use of interviews with doctors and hospital authorities.

### *Pupils Help to Plan Their English Course*

One section of seniors decided to work toward developing poise in public speaking, increasing their cultural interests, understanding themselves, and facilitating social adjustments. Since the development of a vocabulary was essential to ease in speech, the class had daily work in vocabulary and diction. The students decided that poise in public speaking could best be gained by giving talks and that the subject matter for the talks should be drawn from current events, book reviews, theatre, movies, music, and art, since these subjects were also of cultural interest. Committee groups were formed on each of these topics. After each talk there was an open discussion, and the speaker answered questions put to him by his classmates. During the course of the unit the art instructor presented illustrated talks to the group and conducted trips to the Philadelphia Museum of Art. The music teacher spent a period each week with the class, playing records and interpreting composition, and the group attended a musical recital at the Franklin Institute. The majority of the students also went to see two plays then current in Philadelphia: Maurice Evans in *Hamlet* and Raymond Massey in *Abe Lincoln in Illinois*. There was considerable opportunity for free reading, the choice of books frequently being a co-operative affair with the individual accepting suggestions and guidance from fellow students and from the teacher. *Thicker than Water*, by Wunsch and Albers,<sup>6</sup> and *Living with Others*, by Goodrich,<sup>7</sup> and other books concerned with family relations and

<sup>6</sup> Robert Wunsch and Edna Albers, *Thicker than Water*, D. Appleton-Century, 1939.

<sup>7</sup> Laurence B. Goodrich, *Living with Others*, American Book, 1939.

personal problems of young people were read and discussed from the standpoint of the human problems involved.

### *Developing Interest in Art*

The Art Department's first aim is to make the school and community art-conscious. This is encouraged by a large annual exhibition, held in the school's studio galleries, of the more progressive contemporary artists of Philadelphia. Every student in the school has the opportunity to see and study this exhibition, which includes almost every type of present-day American painting and sculpture; thus we have an unusual opportunity to become acquainted with the many forms of art which would not otherwise be discovered. In addition to this annual show, facsimiles and fine reproductions are always available; and several one-man exhibitions as well as group exhibitions are shown from time to time, thus making the gallery a functional part of the school program. The Philadelphia Museum of Art also plays an important and vital part in the life of the school.

One year a series of twenty lectures on how to look at painting and sculpture was given to the entire senior class. We are trying to give each student, whether or not he studies formal art courses in school or college, an opportunity to become enriched by developing ability to recognize beauty in a work of art. The Art Department is not an isolated part of our school, but plays an active part in the lives of the individual students. It aims to help the individual express himself in an art language best suited to his abilities and his environment. It is a workshop in which the young person may express himself with any media suited to his inclinations and tastes, with direction and guidance to further his development. Techniques are never emphasized. It is the child, his idea, his message, and the opportunities that arise in his daily life, in which we are interested.

### *Changing the Emphasis in Geometry*

Realizing that geometry as a tool subject soon loses its value to most secondary school pupils, and that the development of logical, analytic, and interpretative habits of thinking would be both more lasting and more transferable, the Mathematics De-

partment planned a course to make this objective more possible of attainment.

Focusing attention on the nature of proof, students considered the relation between conclusions and the definitions and assumptions on which they were based. Frequent reference to the dictionary, current magazines, and newspapers was made to develop a sense of "definition consciousness"; and a consideration of description, narration, exposition, and particularly argument established the recognition of the role of assumptions. In this connection, in addition to current periodicals, examination was made of advertisements, radio talks, and addresses in the school assembly.

The outcomes were very satisfactory as the class median was well above the normal score in the Educational Records Bureau Cooperative Tests, those who took the College Entrance Examinations achieved creditable scores, and other subject teachers reported that there was a noticeable transfer of training with respect to methods of discussion and reasoning.

### *An Exhibit of Hobbies*

The most concrete manifestation of students' interests is seen each year in the Autumn Fair, which features not only the hobbies of students but also those of parents and teachers. An institution which originated on a modest scale for the Lower School, the Fair has now grown to the extent of showing several hundred exhibits. Numerous auxiliary features have been added: amateur shows, pony rides, flower shows, pet shows, fortune-telling, and booths selling candies and cakes—all of which make the event a gala and festive holiday as well as an educational display. Money obtained from the exhibits is contributed to the Library Fund. It is apparent to the teachers that the Fair has substantially aided in stimulating and encouraging worth-while and pleasant leisure-time pursuits.

### *An Experience with Radio*

The following description of an activity which took place in the seventh grade is included to demonstrate one way in which

significant work may be a natural outgrowth of the interests of young people:

It all started in the fall when we went to the Zoo to observe some animal adaptations. Roger Conant, the director, asked questions on tour and gave out information with machine-gun rapidity. Then we were asked to be in a real broadcast over W.I.P., so we interviewed Conant over the air. This activity led the group to resolve the whole room at school into a broadcasting studio with every minute of the day scheduled. Boys and girls knew for days ahead at just what minute they would appear with a composition, poem, song, or play; and if they were not ready when the gong sounded, the pressure of the displeased group had a greater effect than teacher scolding. Two or three times a day we had the latest news, weather report, and even sport flashes. Finally our station became a television station, so we could show and talk about the 300 charts which were made for social studies work. Eventually the logical thing happened: they asked permission to give an assembly program. It was easy to do after living in a studio for six weeks, and the class assumed most of the responsibility. By that time we had studied consumers' research magazines and were aware of the many misleading advertisements in our country, so between each number of the assembly broadcast some product was honestly advertised.

### DEVELOPING STUDENT RESPONSIBILITY

#### *Responsibility for the Religious Program*

The Student-Faculty Committee on Religious Life is a joint committee of representatives from the Upper School and the Lower School and of members of the student body appointed by the Student Council. The supervision of the weekly Meetings for Worship in the Upper and Lower Schools is the responsibility of this representative group. The general religious life and moral tone of the school is also a part of this committee's activity. It is in no sense dominated by the faculty but is a very important part of the democratic ordering of the school's life in the field of religion, interpreted in its most liberal sense.

The Meetings for Worship, held in the morning midway in the week's schedule, are unprogrammed worship services according to the custom of the Religious Society of Friends. Outside speak-

ers are invited to attend this Meeting on the average of twice each month. Once a month the Meeting is called a "Student Meeting," and the students are given responsibility for the vocal ministry of the Meeting. Last year more than thirty-five different students spoke in Meeting, and during the course of the year two-thirds of the faculty members shared in the speaking at the Meetings. This democratic adventure in worship, based on the philosophy of the Quaker Meeting, is open to questioning as a method, but it does result in strengthening unity and profound silence and appropriate ministry more often than it is attended with inadequacy and failure.

In a Friends' school, such as Friends' Central, the success of the practice of religion is dependent upon the school's way of life and the acceptance of responsibility by every member of the school community for the public and social expression of the individual's inner life.

### *Home Room Organizations*

Students are members of home room groups within their classes; there is a home room for the senior boys, another for the senior girls, the junior boys, the junior girls, and so forth. The home rooms as well as the classes have organizations for the conduct of their meetings and dispatch of school business dependent upon student control. It was thought desirable at the Friends' Central Workshop to have more opportunity for individual and group responsibility; and consequently home room assemblies were instituted, replacing some of the general school assemblies. The purpose of the home room assembly is to increase individual participation in forums and discussions, pertinent both to personal and to school problems. Committees within the home room are organized to plan social programs, take care of the room, and make proposals for group activities.

When the students wish to hold a dance, they are given almost entire charge of its administration. They select the place where the dance is to be held, hire the orchestra, plan for refreshments, conduct the sale of tickets, and provide for chaperons. The faculty maintains some degree of supervision but is sensitive to the students' suggestions. Two scheduled formal proms



are managed by the students of the classes sponsoring them, and several informal dances are held during the year.

### *The Student Council*

Although we have always had a Student Council at Friends' Central, we have never felt that significant progress has been made in student government of the school. Faculty and administration have found it difficult in the past to determine those areas in which students should be given complete control. With the increasing understanding of the meaning of democratic values developed in the revised courses of the Enterprise, it was only natural that students should begin to make the application of some of these principles to their immediate environment. During 1938-1939 student opinion in favor of assuming a larger share of school responsibility was developed sufficiently to cause the faculty to provide increased opportunities for student leadership. The following areas were designated as ones which student government could manage: assemblies, home room meetings, meeting for worship, supervision of pupils' care of buildings and grounds, social events, orientation of new students, Social Service Club, hospitality for visitors, Lost and Found Department, supervision of other student activities. Most of these were carried on through organizations subordinate and responsible to the Student Council.

The Student Council consists of two members from the twelfth grade boys' home room and two from the twelfth grade girls' home room, and one member from each home room in each class from the seventh to eleventh grades. There are two presidents, a boy and a girl, chosen from the four senior members. The boys' president presides at meetings of the whole Council, and the girl presides at meetings of the Girls' Council when meetings are held separately.

During the year 1939-1940 the student government was strengthened by the inclusion of home room periods in the schedule, allowing the home room classes to discuss matters and instruct their representatives to the Council and also enabling their representatives to report more fully to their classes. Recent achievements of the strengthened Council have been: setting

up a committee which worked with parents selling food at games to raise money for new grandstands; welcoming new pupils by means of a reception committee; supervision of recreation at lunchtime, and of afternoon dancing during the winter months; arranging and supervising a system for fire drills.

A new step was made recently when three members of the Council appeared for the first time at a regular meeting of the faculty and discussed at length questions of student morale and pupil-teacher relationships. They came to the meeting with a list of requests for privileges, chief of which was a joint faculty-student committee for the purpose of arranging a system of uniform disciplinary measures, and one result of the friendly discussion which followed was the appointment of a faculty-student committee for the purpose of promoting a closer understanding of the problems of the student and the teacher. The meeting brought about more opportunity for the students to participate in faculty meetings and for the faculty members to become better acquainted with student concerns.

We are aware of the fact that there are several problems which must be overcome before we have a truly effective student government, and yet, having seen considerable progress during the last two years, we are hopeful that these problems will not be insurmountable. A few technicalities must be eliminated. There must be provision for overlapping terms of membership so that the council is not an entirely new body each school year. More time must be provided in the daily schedule for constructive activities. Student Council members are often participating in athletics as well as in other school areas which demand much of their time, thereby leaving them little freedom for a successful completion of some of their plans. It may perhaps be desirable to have two councils, one for the senior high school and one for the junior high school, to allow for leadership and responsibility among the younger members of the school.

### *Class Procedures*

In the several subject areas, teachers are more and more assigning work to be done by committees rather than by individuals only. There is an increasing amount of teacher-pupil planning

and there are many opportunities for students to assume leadership in the class. The work that has been done in committees has allowed for minority reports as well as majority reports. The class usually asks for conclusions and recommendations, a technique which has been particularly successful in social studies courses when students have been concerned with such controversial subjects as health, housing, employer-employee relations, government, and business.

The use of the discussion technique based upon a recognition of the worth of every person participating has been developed. Students have developed a habit of tossing the ball back and forth among themselves. This technique arose partly through the influence of discussions in connection with the film excerpts of the Commission on Human Relations.

### *Extracurricular Activities*

Opportunities for student leadership are developed also through the sports program and by means of extracurricular activities. The school publications have provided an increasing degree of opportunity for student responsibility. The material that is printed in these publications is written, selected, and edited by the students themselves. The faculty reserves the right of censorship, but it is a function which we have seldom had to exercise. With the experience of the editorial boards in assigning articles, reading copy, writing headlines, and correcting proof, many students have been learning to work together and to arrive at group decisions.

Student responsibility is also developed by constantly increasing the degree of student participation in assembly programs. When plays are produced by one of the English classes, students are given almost entire control of the productions. Concerning a recent play that was presented to the Lower School, the teacher writes:

It was an experience in which students did all the writing, directing, and staging. This type of activity takes a longer time to prepare, is harder on the teacher, and does not produce as smooth a performance for an audience to watch, but is nevertheless far more worth while than a teacher-directed type of assembly.

Other types of student programs have been: poetry reading, "Information Please" programs, a model constitutional convention, student group singing, a demonstration of the relation between Halloween and alchemy, and various class entertainments ranging from a modern musical comedy to Shakespeare's *Macbeth*.

### *The Use of the Community*

As students in Friends' Central come from many and scattered suburban areas around Philadelphia, there is no one community common to the entire group; and we have therefore found it difficult to relate school studies to community life as it is known to any group of pupils. We have succeeded, however, in developing several projects involving the community of Philadelphia and vicinity. The ninth grade biology class, for instance, surveyed the health of near-by townships, interviewed doctors concerning socialized medicine, and conducted a radio broadcast in which they interviewed the secretary of the Philadelphia hospitalization plan. During the study of a unit on War and Peace in the senior Enterprise, the students, wishing to "do something about it all," prepared a dramatic program explaining world conflicts through the use of maps, which they presented to school and adult audiences totaling approximately 3,000 persons. Those who were interested circulated petitions urging Congressmen to vote for passage of the Ludlow amendment, which was being considered in Washington at that time. On this occasion a small minority not in favor of the amendment circulated a counterpetition.

Several trips to social service centers were made during a study of housing conditions, and one senior girl became sufficiently interested in the Friends' Neighborhood Guild to spend her week ends there during the spring term of her senior year helping with a recreation program for younger children. Students also have attended adult conferences in Philadelphia which have been held on the subjects of housing and peace. They have from time to time been invited to neighboring women's clubs to conduct discussions concerning such subjects as Americanism, relations of movies to education, and ways and means of educating for peace. They have also been attending both the

adult sessions and the school round tables of the Foreign Policy Association.

From time to time there are opportunities for them to attend student conferences. They recently participated in a mock Republican convention held at Temple University and spent a week end at a resort in New Jersey with students from other Friends' schools, considering topics proposed by the Social Order Committee of the Philadelphia Yearly Meeting of Friends.

Before one election each student in the junior social studies class personally interviewed twenty voters in his area, asking them if they had registered for the primaries and if not, why not. They have also interviewed voters with respect to their opinions on such subjects as the Neutrality Bill, following class study pertinent to that legislation. One boy who was unable to understand why there should be such a large degree of juvenile delinquency in his ward in Philadelphia made a tour of inspection, and became aware of such conditions as the lack of recreational facilities and congested living quarters. Several girls have attended a series of meetings sponsored by the student councils of the private schools in the Philadelphia area, considering the subject "Democracy in School Life." Representatives have also attended the conferences of the students in the Thirty Schools of the Eight-Year Study to consider educational objectives.

### *Student Broadcasts*

Perhaps the most outstanding single activity of the students during the past five years closely related to the Community of Philadelphia has been the broadcasting of round table discussions from the local radio station, W.I.P. The discussions have generally been conducted by 6 to 8 students, have been unrehearsed and spontaneous, and have concerned some subjects which they had recently been studying in their regular courses. It is estimated that 225 students have had this experience during the past five years.

The technique used was to have the program receive its direction from the issues provoked by a short dramatic skit presented to the students at the beginning of the program. Instructors

in charge of the programs played relatively minor roles, simply standing by to see that the conversation kept moving and stayed reasonably related to the issues. Recently, newer types of programs have been devised, varying with the groups presenting them. Fourth grade pupils presented an original interpretation of the story "Pandora's Box," followed by the reading of their own poetry and the playing of their own musical compositions. A seventh grade program consisted of an "Information Please," answering questions concerning the recognition of lines of poetry, spelling, and correct usage. There have been many programs in which students have interviewed authorities on some subjects related to their own interests: Burgess Meredith, on the subject of the theatre and opportunities for young people in that vocation; three alumni of Friends' Central, on the subject of "Vocational Possibilities in Business Today"; and representatives from the American Friends' Service Committee, concerning such topics as religion, refugees, and international conflict.

"Do you know Philadelphia?" was the title of a recent series of eight Tuesday afternoon programs which were designed to study cultural institutions in the community. Historic Philadelphia, the Zoological Gardens, the art museums, the Franklin Institute, the theatre, and the Academy of Music were the main topics presented, relating the work to their studies in history, science, drama, art, and music.

The radio broadcasts, which have been conducted at the invitation of station W.I.P., generally take place on Saturdays and are given from time to time throughout the school year. We have no way of knowing accurately how much of a contribution these student programs are to a parent or teacher audience, but we are convinced that the opportunity for participating in them has meant a real challenge to the students to develop habits of speech and clarity of thought in conversational discussions of vital topics.

#### PREPARING FOR CITIZENSHIP

Chiefly through the revised Enterprise courses which consider the role of the individual in society, and through the Service Club, the school seeks to develop in the students an awareness

of the needs of less fortunate people and a desire to improve the lot of those who are in social or economic distress.<sup>8</sup>

### *The Service Club*

The Service Club aims to help the student become social-minded by assisting in social service work in Philadelphia and elsewhere. The entire school is represented by a council of two members from each home room. This council meets regularly to discuss ways and means and to determine policies. Decisions are carefully reported to the home rooms by the Service Club representatives. Baskets containing food and gifts are provided for from twenty-five to thirty families at Thanksgiving and Christmas; sums of money have been sent to Morristown Insane Asylum, the Women's and Children's Hospital for Mental Therapy, and Schofield Industrial and Training School for Negroes; special appeals from the Red Cross have been answered by raising sizable sums; and each year the students contribute to the United Campaign of Philadelphia.

The following report illustrates the type of home room activity which takes place:

Representatives visited a family suggested to them by one of the Philadelphia agencies and made a report to the class. Several of the girls took the younger children of the family into town to see the Christmas displays and to have lunch. The students supplied warm clothing and presents as well as food at Thanksgiving and Christmas, spending much time sorting and wrapping the things which they had brought and deciding what was needed to supplement the gifts. A committee then took the Service Club funds and made the suggested purchases. This family represents to the class a means of contact with less fortunate people. The financial problems of these people, their living conditions and their health, have become personal and real considerations provoking discussions and activities which cannot fail to make a deep impression.

### *Course Content Supports the Objective*

As one activity of a junior high school course in mathematics, each student chose a vocation and then had the experience of

<sup>8</sup> For a more detailed account see "Developing Social Sensitivity" (Middle States Proceedings, 1939), by Leonard S. Kenworthy, *Secondary Education*, March, 1939.

living imaginatively on the average salary of a man working in the occupation which he selected. The teacher reported:

There were movie stars with a salary of three thousand dollars a week and farmers with an annual income of eight hundred dollars. We had doctors, lawyers, ministers, and boys on relief. Many of them soon found out they could not support a large family or even send one child to Friends' Central School. In order to keep accounts they had to estimate as best they could what people (on their economic level) had to spend. Budgets for different incomes as recommended by the U.S. Government were followed. Many needs of society were evident, and much interesting discussion ensued. That group is still discussing the same problems among themselves two years later.

A more extensive study of budgets is made in a senior Enterprise unit known as "Living Conditions."

Much of the social studies material affords opportunities for developing an awareness of the needs of society, and a desire to eradicate existing social and economic as well as political evils.

In the junior Enterprise two units in particular bear on this topic—one "The Development of Democracy" and the other "Farms and Factories." The Development of Democracy unit stresses the basic concepts of the importance of each individual and his concern for the welfare of the group. From the application of those beliefs have stemmed such movements as education, women's rights, prison reform, and care of the handicapped, as well as the political movements commonly studied in detail. In the Farms and Factories unit, the transition of the United States from an agricultural to an industrial nation is traced, and the attendant conflicts between the creditors and debtors of the "haves" and "have-nots" are emphasized. The organization of business groups such as the National Association of Manufacturers, the formation of such farm blocks as the Grange, and the unionization of labor in the Knights of Labor, the A. F. of L., and the C.I.O. are all studied as illustrating the struggle for economic, social, and political power. The rise of governmental regulation as a factor in American life is studied in detail.

In the first semester of the senior year the scene usually changes to Europe, and a study is made of the dictatorial and democratic



forms of government and economy in several nations. The study of the totalitarian states shows how gross inequalities of wealth and opportunity, unemployment, lack of education, and similar social and economic maladjustments have given rise to communism and fascism, and how this struggle between the "have" and the "have-not" nations has been at least partially responsible for international warfare. In the democracies, particularly in Scandinavia, the ideal of cooperation or group welfare is quite apparent as students delve into the recent history of the Scandinavian countries.

In the second semester, seniors usually return to the United States for a consideration of "The United States Today and Tomorrow"—a unit on such problems as the American standard of living, the costs and services of government, crime, housing, health, employer-employee relations, etc. In these topics, as in those of the junior year, attention is given to the areas in which progress has been made toward the democratic ideal. In studying the topic of labor, consideration is given to such recent developments as the General Motors, Nunn-Bush, Hormel, and other plans devised to improve relations between the employers and the workers. In government the success of such cities as Cincinnati, Berkeley, Saginaw, and Milwaukee is brought out in contrast to the stories of graft and corruption ordinarily treated in textbooks and so prevalent in discussions.

Wherever possible, trips to housing developments, settlement houses, and clinics supplement reading, classroom discussions, lectures by invited speakers, and movies. Up-to-date pamphlet material is the main source of the reading.

Correlating with the social studies material is an emphasis upon some of the literature of social consciousness that has illustrated the human and emotional significance of charts, graphs, and statistics. Figures showing the relationship between congested living arrangements and juvenile delinquency may be easily forgotten, but *Dead End*, whether read as a play or seen in the film, is not so likely to escape the memory.<sup>9</sup>

<sup>9</sup> See article on "The Drama and Social Problems," by Robert J. Cadigan, *English Journal*, September, 1939.

*Developing Respect for the People of Other Countries*

In accordance with the testimony of the Society of Friends, which takes its stand against force as a means of settling international disputes and which emphasizes the necessity for good will and understanding between nations, the school has attempted to develop in the student an understanding and appreciation of people in other countries, their problems, and their contributions to our world culture. This objective has been served not only in our religious program but also through class studies.

Students have corresponded with boys and girls in other countries, an activity sponsored by either language or social studies courses, and many of them have developed considerable interest in the country in which their correspondent lives. The emphasis in the study of German is upon developing an understanding of the German people. Naturally the translations of such sentences as "I shall not have seen the man of whom you spoke" would be of little if any value in gaining this objective, so that type of activity is eliminated for other procedures which will give the students an acquaintance with the music, art, and literature of that nation. In the French course the ideas of such writers as Rousseau, Voltaire, Balzac, Zola, and Hugo, and of such personalities as Joan of Arc, Jean Valjean, and Madame Thérèse, show maturing young people that ideals of independence and brotherhood, concern for social justice, and loyalty to one's highest knowledge had found ardent supporters in France even before they became activating principles in the development of our democracy.

In a senior Latin course the dramatically developed theme of the *Aeneid*—dedication of the individual to the family, the state, and the betterment of human destiny—presents a stimulating challenge to young people. After reading this great Italian poem our young people can hardly regard even modern Italy without appreciation of the qualities of manhood that have gone into its long making. In the senior year of the Enterprise, students have had a unit entitled "International Literature." The reading of novels, plays, and poetry, written by German, French, Scandinavian, Russian, Spanish, Irish, and Central European authors,

enables them to compare family life and social conditions as we know them in our country with what they have been and are in European countries.

In addition to reading, students interview citizens from European countries and, with their social studies teacher, make a very thorough analysis of the dictatorships and democracies in Europe, the way in which these governments came into existence, and the conditions under which they now are governed. At no time do we merely condemn a less desirable form of government than exists in the United States, and smugly congratulate ourselves as the chosen people. We are careful to emphasize the causes and conditions which create authoritarianism and violence and the negation of personal and civil liberties.

The material supplied by the Service Bureau for Intercultural Education has been very helpful to us in the construction of units of work showing how Italians, Germans, Orientals, Hebrews, Negroes, and others have made tremendous cultural and economic gifts to American life.<sup>10</sup>

A constant stream of visitors to the school as assembly speakers or as invited guests at the school Meeting brings current international developments to the attention of the school. This is particularly true of the representatives of the American Friends Service Committee, international organ of the Quakers with sections on Peace, Social-Industrial Relations, Foreign Service, and Refugees.

Students and faculty are in constant contact with the Foreign Policy Association, participating in their luncheon meetings and reading their pamphlets and News Letters.

#### FEELING THE PULSE OF THE SCHOOL

In a sample issue of the *Friends' Central News*, a student publication, one sees reflected a good picture of the impact of curriculum changes, opportunities for student participation, and some of our objectives upon the regular school program. The

<sup>10</sup> The reader is referred to "Tolerance, One Way of Arriving at Understanding," by Berenice Woerner, *Progressive Education*, October, 1939. The article is based upon the writer's experience in teaching literature in one of the Enterprise classes.

following excerpts from the paper are evidence of progressive activity.

#### *Extra Activities of Enterprise Classes*

Mrs. Scholz's section has visited the Friends' Neighborhood Guild, Graphic Sketch Club, and numerous housing sites in Philadelphia. Seniors also spent some time at the Philadelphia Free Library, the libraries of Haverford College and Swarthmore College and of the University of Pennsylvania, as well as three local libraries.

Mrs. Cadigan has been showing moving pictures to the students. Those already shown have been *Alice Adams*, *Dead End*, *Educating Father*, *Ruggles of Red Gap*, and *Captains Courageous*. Those still to be seen are *Cavalcade*, *Emile Zola*, and *Arrowsmith*. These excerpts present such problems as: children in slum districts, fight against prejudice, and vocational problems.

Juniors have been listening to recordings of broadcasts sponsored by the United States Office of Education. The title of the series is *Americans All*, *Immigrants All*, and the broadcasts which were heard were "The Closing of the Frontier" and "The Contributions of the Immigrant to Industry."

#### *Commencement Talk by Dr. Carson Ryan*

The speaker at the commencement exercises on June 7 will be Carson Ryan, of the Carnegie Foundation for the Advancement of Education, and recently elected Director of the Department of Education at the University of North Carolina, at Chapel Hill. . . . In recent years he has been an outstanding leader in progressive education circles, serving as editor of the magazine *Progressive Education*.

#### *Art Exhibit at School*

The annual exhibition of Philadelphia Artists opened at Friends' Central on Wednesday evening, April 17. Most of the well-known artists in the vicinity of Philadelphia were represented. A very gratifying crowd of teachers, parents, students, and artists was present.

#### *Graduate Receives Honor*

One of Friends' Central graduates has received a special distinction in his freshman year at Yale. Paul Griffith has, to date, had a play and a short story published, in the December and February issues of the *Yale Literary Magazine*.

*The Opcretta of Cinderella*

*Cinderella*, an operetta about the lady who lost her slipper, will be given in assembly on May 6th. It is composed of folk tunes which have very catchy airs. It is something new for F.C.S. to do, and is particularly a school affair since both boys and girls will take part.

*C Boys Smarter than Parents*

On Saturday, April 13, at 10:00 o'clock, four boys and four parents had a combat of knowledge on station W.I.P. The questions were submitted by the Friends' Central students and parents, and were asked on the air by Mr. Kenworthy. Mrs. James was the scorekeeper. These questions were on literature and current affairs and were very good questions. The boys seemed to be a little smarter than the parents and won with the close score of 140 to 129. . . .

*Social Service Club*

The Service Club is helping in the "Children's Crusade for Children," a crusade in which the children of America are helping the children of war-torn Europe. . . .

*School Assemblies*

At the assembly program of April 9 the students were fortunate in hearing Dr. Robert Robitschek discuss several German composers. Dr. Robitschek, known as a musician of the first rank, is a native of Prague, Czechoslovakia, and it was in that city that he received his musical education.

Last summer Frances Jones of the Class of '39 was a member of a group of young men and women who visited Germany in order to discover and experience the German way of living. This group was under the leadership of an experiment in international living whose director, Dr. Donald Watt, was the speaker in assembly on March 19. Dr. Watt emphasized the point that the experiment must be thought of as peace work, for its leaders believe the only method for permanent peace is a universal understanding of all peoples. One way to understand our foreign neighbors is to live with them. . . .

*Motion Pictures in Assembly*

Motion pictures and music will be featured in the assemblies for April and May to be held in the gymnasium. *The River*, the story of the Mississippi, what it has done, what man has done to it, and what will be done in the future, if the nation avoids further disasters as a result of floods, will be shown on May 14. . . .

## UNSOLVED PROBLEMS AND HOPES FOR THE FUTURE

There are still several areas of school life in which there is ample room for improvement. Many faculty members frequently express the hope that we will continue in the development of both an increasingly effective form of student government and a school program in which individuals will be enabled to assume more responsibilities for self-direction. Although we have instituted more elective courses in the Upper School designed both for students who have special interests and abilities and for those whose needs are not being fully met by the regular subjects, there is still room for progress in this area. The junior high school curriculum is in need of revision and administrative policies which will give a greater continuity of experience for students in the three years between the Lower School and the tenth grade. The greatest worry that the faculty seems to share is that of the economic pressure felt because of complete dependence upon enrollment. At least ten members of the faculty expressed the thought that a waiting list would solve our major problems. It should be pointed out in this connection that Friends' Central is in an area where there are many independent schools within a short radius.

When the faculty was asked to express, as specifically as possible, their hopes for Friends' Central School in the future, there was substantial agreement as to objectives. Most important and most frequently expressed was the wish that we might continue to become a Friends' school in the fullest sense. Dr. Barclay L. Jones, our headmaster, states this hope most clearly:

I hope that Friends' Central will be a worthy exponent in education of the way of life as seen by the Society of Friends. I yearn for that condition in which the inner life of the school shall be characterized by the serenity, good will, and mutual respect for each other that ought to obtain in a genuinely Christian community. I hope that our school can in spirit, and in deed, to the greatest extent possible, stand for the widely recognized Quaker testimonies, because this is our favored heritage and special privilege. But such a position is not valid if taken only for the sake of tradition; it must be believed in as a personal faith by those who adopt it.

# THE GEORGE SCHOOL

## GEORGE SCHOOL, PENNSYLVANIA

George School, a boarding school established by the Society of Friends for boys and girls of secondary school age, is situated in Pennsylvania, twenty-five miles northeast of Philadelphia. The campus, adjacent woods, and school farm—in all, about 242 acres—give it a country setting.

\* The school's heterogeneous student population is made up of about equal numbers of boys and girls. Of these, slightly more than 50 per cent are children of Friends, and approximately 42 per cent are children, or sisters or brothers, of alumni. Most of the pupils come from the Middle Atlantic States, with a scattering from other sections of the United States and several foreign countries.

From 60 to 70 per cent of our graduates enter college, a few go on with technical courses, such as nursing and secretarial work, while the others do not continue their formal education beyond George School.

Every effort is made by the faculty to help the 390 students live together in an atmosphere of harmony and cooperation. In this the pupils have an important contribution to make. For example, each is responsible for the care of his own room. In the dining room the service is family style; the boys wait on the table and the girls serve. Boys and girls also share in the labor necessary to keep the playing fields in good condition. The individual chore is small, but the sum total of the work is great. These and other self-help plans teach self-reliance, establish an influence against luxurious tendencies, and reveal to all students that manual labor does not detract from the highest type of social life.

### *The Educational Philosophy of George School*

Boys and girls today need help in so directing their personal lives that they can contribute to social values as well as attain individual fulfillment. They need a concept of the universe, of

man's place therein, of their relations to the group life, and of human nature and conduct upon which to build their own framework of ideas and beliefs. The new world created and discovered by science has left many uncertain about what to believe, perhaps somewhat fearful. Science has not yet interpreted its findings and conceptions in a way that is emotionally satisfying or inspiring to the new way of life demanded by our present complex social order. Hence the educational and social philosophy of teachers and administrators is very important in determining the scope and fundamental objectives of the curriculum and in determining the direction of each pupil's growth and development.

The educational philosophy of George School is deeply grounded in the religious beliefs of the Society of Friends. Some of the more fundamental of these beliefs may be summarized as follows: Quakers believe that reality is spiritual, rather than material; that God, though infinite, is actually present in the universe; that God is in each person as an indwelling spirit. They also affirm that God reveals Himself and His meanings directly to each human spirit and that what is revealed by these religious experiences must be tested and judged on the basis of their consequences in the functioning of each individual as a member of a complex, interdependent society.

George School accepts the following as its most important educational objectives—to help each pupil make substantial progress in:

1. *Achieving and maintaining sound physical health.* Close cooperation between the medical staff and all the other departments facilitates the work toward this end.

2. *Developing habits which promote continuous intellectual growth.* By its teaching and general atmosphere, George School attempts to instill in all pupils an eagerness to learn.

3. *Attaining effective and satisfying emotional adjustment.* George School believes that emotions can be trained. This makes it obligatory for a school to observe the emotional state of individuals and, through guidance, to get a reaction to experience that is marked by sanity, courage, faith in human values, and understanding of human personality.

4. *Developing a wholesome philosophy of life.* A philosophy



of life must be personal to be real. To be of service to democracy, it must believe in the unique, inherent worth of each person and must regard the personal qualities of men as the highest level of creation—more important than things or institutions. It should lead to a willingness to sacrifice for the common good, to a desire to work toward the constructive solution of baffling personal and social problems. to a mastery of the physical world.

### *The Sequence Curriculums*

Experimenting to provide an education which will help boys and girls find useful places in a changing civilization, as well as developing in each individual the ability for self-discipline, human kindness, and spiritual power, George School is attempting to integrate educational experiences through religion by relating all knowledge and experiences to a standard of spiritual values.<sup>1</sup>

The school has taken its part in the Eight-Year Study without any *fundamental* changes in school policy or routine. There have been, however, important changes in curriculum content, in methods of teaching, and in guidance.

Under the influence of the Pennsylvania Study and the objective testing program of the Educational Records Bureau, George School had been experimenting since 1927 to facilitate learning and make it a more continuous process. This led to the development of sequence curriculums, intended to cover the last three or four years of secondary school work. The first of these, the language sequence, was introduced in 1932, one year prior to our joining the Eight-Year Study. The sequence curriculums have been developed beside the college preparatory curriculums of conventional units, similar to those usually found in other secondary schools. These sequence curriculums are perhaps the distinguishing feature of the school's academic work.

With the development of this plan, a pupil entering the tenth grade had (until the faculty dropped a mathematics-science sequence at the end of the school year 1940) the opportunity to enter one of five groups, each following a somewhat different curriculum. Four of these groups were designated as sequences,

<sup>1</sup> See section on "Religious life and teaching at George School."

each known by a letter which symbolized its dominant characteristic and the year of graduation. Thus the students in an S sequence being graduated in 1941 would be known as members of Division S-41.

The term "sequence" was chosen to indicate the characteristic of continuity of study in the same subjects over a period of years.

To illustrate, the L sequence (L for languages) consists basically of English, Latin, French, and mathematics continued for three years, with certain modifications permitted in the senior year. The S sequence (S for social studies) consists of social studies, French or German, English, and mathematics for three years, with an option of a science instead of a mathematics course in the last year. The M sequence (M for mathematics-science) consisted of mathematics, science, English, and an option of a foreign language or social studies; it was dropped in 1940. The C sequence (C for citizenship) consists of English, social studies, mathematics, and science. There is no study of foreign language in this sequence.

Each student in each sequence takes an elective in some phase of the arts each year. The plan whereby the pupils in each sequence were required to take specific art work has been abandoned in favor of free election from these fields.

As has been indicated, there is also provision for electives in the twelfth grade, which permits some modification of the three-year sequence plan.

With their instructors, the pupils in a given sequence are together for three years. The pupils and teachers plan the work in terms of the objectives they have agreed upon, and attempt to evaluate results in terms of the goals toward which they have been working. A fundamental assumption underlying the sequence work is that the continuity of subject matter within a given field is more important than the correlation of separate subjects, although the correlation is done as often as is possible to reveal the interrelatedness of various fields of study. Pupils may go as far as they can in subject matter that is best suited to their needs and to the purposes of their sequence. Within the framework of the general sequence plan, some students are permitted to proceed individually at a faster pace or to work upon an individual

or small group project growing out of their needs and desires.

Not all the students at George School are in sequence curriculums. Some come to George School for less than three years and are not eligible for a sequence. Many who come for three or four years need more time to explore various possibilities in order to settle upon a definite educational purpose. These pupils continue their studies in the regular, academic, college preparatory curriculum, which includes such traditional courses as American history, physics, plane geometry, and foreign languages. For advisory and administrative purposes these pupils are known as Division E (E for exploration).

### *Brief Description of Each Sequence*

There is a core of subjects common to all four sequences, but no common body of subject matter. The content varies according to the demands of a group of students and the sequence in which they are working.

*Division L*—a three-year sequence in languages and mathematics. The chief aim of this sequence is to enable a pupil to attain proficiency in languages and mathematics, the so-called tools of learning, so that he may pursue advanced work in college with facility and profit. The attitude and experience of college faculties have influenced its development. The school and college cooperate to make this curriculum the first part of a six-year plan of study for each pupil. One of the fundamental purposes of the Eight-Year Study was to facilitate planning between schools and colleges. The L sequence is well adapted to this.

The objective of this, as of all our sequence curriculums, is not to be modern (as usually applied to those schools which have dropped all traditional subjects), but to serve the best interests of one type of pupil. There are pupils who prefer to school themselves in subjects which have for a long time nourished the growth of many of the best minds. Obviously, however, to require all students to take such a curriculum would be educational malpractice. Affording the opportunity to those who will be challenged by it and for whom it provides an efficient medium of acquiring scholarly habits is one way of effectively meeting individual needs.

An experimental feature of this curriculum is the development

of social attitudes by teaching traditional subjects with social-minded teachers in a school in which visitors, assembly programs, and religious exercises are fertile social stimuli. Pupils in their senior year may substitute American history for Latin, or physics for mathematics.

*Division S*—a three-year sequence in the study of the problems of contemporary society. The social studies sequence is built upon the fact that the dominating intellectual interest of some boys and girls is to be found in the political, social, and economic problems of contemporary society.

In this sequence considerable correlation springs up between history and English, and history and the study of religion. There has also been considerable correlation between the history of science and of mathematics, and history in general. This has led in many cases to a pupil's desire for a full systematic unit course in one field of science or another. Senior students in this sequence are permitted to substitute a course in chemistry, physics, or biology for the mathematics course.

The study of a modern foreign language, either French or German, is included in this sequence. Less emphasis is placed upon the study of grammar and translation and more upon the early development of reading ability, so that a student can use it in his study of history and social problems. This helps the students, even those who are handicapped by a limited ability in the field of language study, to see it as something vital and meaningful in their educational experience and not merely as a set of isolated exercises.

*Division C*—a three-year sequence for the study of contemporary society, a preparation for citizenship. This sequence, without foreign languages and with a minimum of abstract mathematics, is offered for slow readers and others who find such work exceedingly difficult. It is an outgrowth of our participation in the Eight-Year Study. Pupils study in four fields: English, mathematics, science, and social studies. The chief difference between this and Division S is in the selection and presentation of materials. With these groups the study of concrete situations is more important than abstract reasoning; thinking is encouraged in terms of the tangible and visible.

We have not claimed for Division C students the exemption

from the published entrance requirements of colleges to which a few pupils from this sequence may make application.

### *Some Advantages of the Sequence Plan*

In actual practice several advantages arise from the sequence plan of work. Among the more important of these are:

1. It brings together a group of pupils with somewhat similar life purposes, college or vocational ambitions, interests, and abilities.

2. It permits a great deal of group planning—teacher with teacher, and pupil with teacher. The teachers who start with a sequence remain with it, thus providing a continuity of class activities and experiences through a period of years.

In many cases teachers will ask their colleagues to teach specific aspects of the work. This enables the pupils to get a new point of view, or experience a different approach to the work, but does not interrupt the continuity of the educational experience for them.

3. Students of the same group remain together throughout the life of the sequence, unless a change seems wise in any individual case. This enables the teachers of the group to know each pupil well, and they can plan the work more intelligently to meet individual differences within the group than if they were associated for only a year or less.

In this connection it is interesting to note that not only is there a difference between subjects as taught to the different sequences, but there is also a difference between the way a subject is presented to divisions of the same general sequence. For example, not only are the social studies taught differently in Division C-41 than in Division S-41, but the social studies in S-41 may also be very different in content and method of presentation from those in Division S-42.

4. Teachers have learned to work cooperatively. The teachers of a sequence meet regularly to consider the problems of their particular group and discuss objectives, classroom procedure, pupil-teacher planning, evaluation instruments and results, and pupil guidance.

In a sense the whole program centers around these "sequence

meetings," for it is here that decisions are made as to what is to be studied, the value and advisability of lines of procedure are thrashed out, plans for all new work are discussed, and the growth and development of individual pupils are studied.

5. Correlation between subject fields is greatly increased.

6. Having three years in which to teach a group of pupils, teachers feel freer to explore with leisure and flexibility large areas of human concern.

7. The sequence facilitates the planning of educational trips to supplement classroom work.

8. Competition between subject fields for a pupil's time has disappeared. It is also easier to lighten a pupil's load when that is desirable.

### *Guidance: Its Place and Importance in the Sequences*

The whole George School program is designed to help each individual develop the most satisfying way of living. In this sense the objectives of guidance and of education cannot be separated; both must be achieved in the main stream of educational experience. The task of guidance, therefore, cannot be relegated to any one person or segment of the school program. When the school views the effects that all a pupil's experiences have on his total development, it must be concerned with all phases of the life within the school: the content of the courses, the experiences in the classroom, the athletic policy and practice, the experiences of the students with members of the faculty and with one another, the living conditions, the conditions under which a student works and plays, and the social life.

A close personal relationship of staff members with pupils has always characterized the school. Close friendships have been proved possible without sentimentality. This is the heart of guidance. Changes resulting from the Eight-Year Study have aimed at making this spirit more inclusive. Enough organization has been supplied so that every student knows to whom he may turn for advice about problems confronting him. These head advisers are responsible for following carefully each step in the personal growth of their pupils and are furnished with data

hitherto unrecorded or unavailable. By scheduled conferences with teachers of their divisions, advisers have been able to substitute a composite for an individual viewpoint. The purpose of such guidance is not prescriptive, but aims at helping each student develop the ability for self-guidance. Only on such a basis can we encourage the initiative and self-reliance so necessary for the greater freedom and broader requirements of maturity.

We make an effort to extend the same careful guidance to all our students, whether or not they are in a sequence. The first class—ninth grade—is organized as a distinct group to explore the capacity and interests of its members and to guide them into the sequence curriculum which best meets their needs. The teachers of this group work as a unit, following the development of each individual and appraising his possibilities. This plan of group guidance and planning by the teachers of the regular college preparatory groups has also been extended to the tenth grade.

### *Diagnostic Program*

In any educational program there exist the very important problems of predicting pupil behavior and of diagnosing pupil performance for the purpose of discovering as much as possible about each pupil's abilities, interests, likes, dislikes, strengths and weaknesses, home background, and previous experiences. Upon this aspect of our guidance program we have spent time and thought, and have experimented considerably. This has been important to us for the following five reasons:

1. We want to learn to know our new students intimately as quickly as possible.
2. We want to discover the main strengths and weaknesses of each student in order that remedial measures can be started as soon as feasible.
3. We want to determine the aptitude and the fitness of a student for a given sequence or course of studies, thereby facilitating and accelerating desirable schedule changes.
4. We want to get all the data that will be of value in adjusting the curriculum to the individual or in guiding him in ways that would prove significant for living more democratically.

5. We want to measure the development of our students as we work toward the specific sequence objectives or toward the more general school objectives.

As a part of its preadmission program, George School gives tests—the results of which are available to the teacher and adviser.

All students entering the ninth grade take a reading test and a mental abilities test, such as the California Test of Mental Maturity. In addition, we occasionally give to an individual student a standardized achievement test, such as one of the Educational Records Bureau Cooperative Tests. Granting the limitations which all paper-and-pencil tests have, we feel that they do have their uses if interpreted carefully.

To all new students entering our tenth grade, we give the American Council Psychological Examination and a reading test. We make frequent use of the Educational Records Bureau Cooperative Tests. Those students who enter the tenth grade from our ninth grade have also taken the American Council Psychological Examination and a reading test as part of our fall testing program. Most of them have also taken some of the Cooperative Tests in specific subject matter fields.

In addition, there are results from mental abilities tests and achievement tests sent from the student's previous school to supplement our own testing program. Accompanying such results is a transcript of the student's school record.

Information of interest and value from letters of reference, friends of the family and school, and parents and former teachers are filed in each student's folder, which is kept in a central file in the office. A summary of the applicant's interview with the school administrators or teachers is also available.

Much more information about each student is gathered after he has been admitted. This is kept as part of his cumulative record. Some of the more useful methods of obtaining such data are given below. It is not an exhaustive list, but it does include the most helpful techniques for our purposes. No one teacher could be expected to use all these devices. Each is expected to select those which prove most fruitful in his individual situation. One must use all such devices with careful discrimination and exhibit intelligent care in interpreting the results. The definite



limitations of each procedure must be continually borne in mind.

For obtaining essential information by use of questionnaires or by reports or interviews with the student, parents of the student, friends, former teachers, and others, we have found the following very helpful:

1. Omnibus Personal Questionnaire. This is a questionnaire, devised by the school, to be filled out by the student. It contains many questions pertaining to the home, the family life, the hobbies, the interests, the educational plans and vocational ambitions, the use of leisure time, and the reading interests of the student.
2. Interviews with the student.
3. Interviews with the parents or guardian.
4. Physical examination.
5. Information from the Student Council.
6. Reports from the pupil's teachers.
7. Behavior ratings or trait studies devised by the Committee on Records and Reports under Eugene R. Smith.
8. Behavior ratings from trips and excursions. These include reports from teachers concerning a student's behavior while on a trip, and his attitude toward what was seen or experienced, and have proved very useful in guiding a student.

The following methods have been used in obtaining information concerning a pupil's general attitude, his reading skills, probability of his success in a given field of study, causes of his specific difficulties in an area of activity, and specific aspects of his academic achievement and personality development:

1. Teacher's diagnosis. In all fields of study the teacher has an opportunity of studying a pupil's methods of work, study skills, reading comprehension in a given field, and size of vocabulary, as well as of gaining some insight into a pupil's attitudes, interests, past experiences, point of view, likes and dislikes.
2. Aptitude and achievement tests.
3. Progressive Education Association Tests.
4. Supervised study periods.

We have found very useful the following methods of securing helpful information about such things as a student's interests,

goals (immediate and distant), likes, dislikes, and maturational level:

1. Interest Index (8.2a). We have found this one of the most useful of the Progressive Education Association Tests.
2. Free reading record. Teachers keep a list of the books, magazines, and pamphlets which a pupil has read during a given time. By discussing this with the student, the teacher is able to get some valuable information concerning the reasons for a pupil's choices, his reactions to what he has read, his interest in further pursuance of some fields of interest, and the like.
3. Free writing. We have found that the things a student writes about, when given a choice of topics or given opportunity to write about anything he pleases, are often most illuminating.
4. Types of "outside" materials brought in for illustrative purposes. This is an interesting technique, for it often reveals interesting things about a pupil's interests, sources of materials, and discrimination as to the appropriateness of various materials.
5. Pupil products. The various fields of study or the various activities in which a student engages, the things he does or produces, offer to the interested teacher another source of important information.

A practical teacher will not rely upon any single method for learning to know his pupils, and this is especially true at George School. Teachers are encouraged to know their students as intimately as possible in order that their teaching and their person-to-person contacts may be as helpful as possible. To a greater or less degree all these techniques are used by the members of our staff.

George School has been experimenting to find the most efficient way of keeping cumulative records for each student. At present all the materials pertaining to a pupil are filed in a folder in the central office. In each folder are kept all the correspondence concerning a student, all reports from teachers, health reports, term reports, a record of extra study hall assignments, the number of hours of extra help, penalties, student activities, and results

of all the standardized tests. This material is available to all teachers and dormitory advisers, as well as the head advisers, and is used extensively. Each teacher makes his own records of such materials as he finds most useful.

George School has been using the form developed by E. R. Smith's committee for reports to colleges concerning students. This we have found quite satisfactory.

### *In Conclusion*

Our work and experimentation are far from finished. More time is needed for developing new projects. There are some areas in which our work has not produced the anticipated results.

For example, in some of our early attempts to effect a correlation between subject matter areas, we very successfully worked it out down to the minutest details on paper; but, after trying it for a while in the classroom, we had to discard most of it. We had carried too far our efforts to keep the subjects out of their traditional pigeonholes. Students tired of the constant cross-referencing from field to field, so that we tended to condition them against the very thing we hoped to accomplish.

We have not been able to fuse the three traditional courses of biology, physics, and chemistry into a science course in any division. Another area in which we need to develop further thought is in the teaching of mathematics. In our teaching of this subject there still persists considerable, perhaps too much, adherence to the traditional methods and aims of teaching the various subjects as discrete, unrelated parts of the same field. As already mentioned, in spite of our professed objectives in this connection, we have not been able to work out a satisfactory fusion of mathematics-science as had been planned for our Division M.

We have all been interested in helping our pupils to think more carefully and accurately. Our efforts to stress clear thinking on the part of our pupils have resulted in our stressing the need for defining terms, examining assumptions, ascertaining facts, developing logical arguments, and studying the conclusions drawn—to see if they logically follow from the arguments, facts, and assumptions used. We have become conscious, however, that our

emphasis on these has sometimes resulted in neglect of one other very important aspect of clear thinking: correct grammar and accurate punctuation.

We have spent much thought and energy on clarifying our objectives. This has been a valuable experience. Occasionally, however, we have failed to carry far enough our study of the appropriateness of the materials and experiences we were using to achieve these aims. Also, in evaluating progress toward these goals we have often neglected to observe widely enough, or carefully enough, a student's growth as manifest in all types of overt behavior. This has often resulted in making assertions on insufficient evidence.

We have not gone far enough in finding materials or experiences which will facilitate the education of the nonacademic student who deals laboriously, and most often ineffectually, with abstract, verbal materials and symbols. We are making an effort more and more to solve this problem in our work with Division C, but it still demands much attention of us.

Often, when we have been able to detect inefficient methods of work or poor study techniques, we have not known well enough how to apply remedial measures successfully.

The problem of cumulative records still concerns us. We have not devised a really efficient way of recording notes so that when the materials of one head adviser are turned over to another the latter may easily understand and use the notes and recordings.

The Eight-Year Study, however, has been very stimulating for George School. It has produced many beneficial changes, not the least of which is that the faculty members have developed a great deal as a result of their thinking together about their common problems.

No longer are most of them content to teach one unrelated, discrete segment of the curriculum. Many see more clearly their special field as being part of a larger whole and contributing to a wider variety of objectives.

There is a growing tendency to think in terms of the pupil's total personality development and not merely the growth of his intellectual powers. There is a greater consciousness of individual differences, of the need for adapting the work of a given course to

meet these individual needs, and more awareness of the role a pupil's physical condition and emotional attitudes play in any learning situation.

Many of the faculty have also become more alive to the complex nature of work habits and specific study skills. Less often are sweeping, generalized statements made concerning a pupil's abilities, skills, initiative, perseverance, and interests. There is a tendency on the part of many teachers to recognize their responsibility for analyzing each pupil to see just where a specific disability lies, or to determine the exact nature of a weakness. This, in turn, has made many teachers more alert to their responsibility for doing what they can to correct or eliminate these deficiencies.

Then, too, the mastery of information as an end in itself, or as a preparation for a more or less remote future, and the acquisition of the various "tools" of learning are no longer considered by most of our teachers to be the sole objectives of education.

There is a trend away from the use of a single textbook to prescribe the limits, the nature, or the sole source of the content of a given course or sequence of work. Many teachers have become much more conscious of the need for a wide variety of materials, verbal, graphic, pictorial, and radio, to meet the diverse needs of their pupils. The use of the library has become much more prevalent and intelligent. Excursions to industrial centers, art galleries, and seats of the local and federal government are used more and more in an effort to vitalize and make intelligible the work of a unit, project, course, or sequence.

In addition, there is a tendency to rely less exclusively upon the results of pencil-and-paper tests to evaluate progress toward those objectives, or to determine the educative value of some types of educational experience. Much more effort is now made to collect data from all sources in which a pupil's behavior can be observed, recorded, and interpreted. Moreover, faculty and departmental workshops at George School have grown out of the experience many of us have had in those run by the Progressive Education Association as an outgrowth of the Eight-Year Study.

RELIGIOUS LIFE AND TEACHING AT GEORGE SCHOOL<sup>2</sup>*Education and Religion*

The two objectives of education, to advance the growth of a harmonious individual and to prepare him for a constructive relation to society, are interdependent if not identical. True service to others presupposes a sound structure of the person rendering this service. Freedom alone, of which the history of education makes so much, cannot be the ultimate goal of education; freedom must be purposeful in order to deserve a high rank. Man's worst troubles begin, as Aldous Huxley so aptly states, when he is free to act as he pleases.

The equally forceful demand, which we nowadays are accustomed to hear, that education should produce the social-minded individual, too often overlooks the fact that only a fully integrated self can function satisfactorily in the rebuilding of society. Social reconstruction concerns more than the reorganization of society, slum clearance, labor legislation, marriage relations, and similar problems. It must aim at a broader understanding of the inner state of modern man and aim at reaching a higher plan for interhuman relations. Such work can be undertaken only by persons who have undergone an experience of self-reconstruction; society will benefit from their surplus freedom. The idea of freedom receives dignity by being related—a sharing, a purposeful freedom. A freedom to possess and to enjoy is, therefore, an incomplete freedom and needs to be supplemented by the freedom that rises above the limitations of the self.

It is our conviction at George School that religion is the only sound basis for such an education. We must search for a power which transcends the limitations of human nature and which "makes for righteousness," as an old Quaker expressed it. Such quality of life and personality is attained when the spirit of a school transmits in its daily life some of the beauty of the higher life; it is a liberating as well as a binding spirit.

The Friends have described the essence of their mystical be-

<sup>2</sup> Prepared by William Hubben, Director of Religious Interests, as a report to the Eight-Year Study of the Progressive Education Association.

lief in terms of the "Inner Light," the "Inner Voice," or the "Seed," but such hints can only point out the direction of their inspiration and do not attempt a scientific definition. Their worship in silence is meant to raise them above their individual spheres, and the spoken word may occasionally catch a glimpse of a higher life and a purposeful freedom. We do not believe that a creed, or a theological speculation on the nature of God, or ritual actions are essentials of true religious experience, but that the sharing of silent prayer and an active life of service convey some of the essence of a power that is beyond forms and definitions. The spirit created around ourselves by devotion to our work and service, in our recreation and friendships, may, at rare moments, transmit to us a measure of what was meant by the "kingdom" in the New Testament. The awareness of the Divine in every person does away or at least diminishes the traditional distinction of race, color, social classes, and sex. The history of the Friends is an illustration of the renewed attempt to live such faith.

Religion, therefore, is a basic need. It has been excluded from public education in America because controversies arising from differences in faith and practice frequently divided the community against itself. It has been retained in private, sectarian institutions, often for sectarian purposes. Its proved value for integrating personality and directing the expenditures of vital, personal energy necessitates an experimental approach in any educational reform program. A crisis in education is always symptomatic of a crisis in the highest values of humanity. When the otherwise meritorious volume on *Reorganizing Secondary Education* charges the school with the task of supplying young people with the insight and motives to develop sane social concerns, it largely proposes procedures which belong to the standard inventories of any rationalistic philosophy of the eighteenth and nineteenth centuries. Our objective in education is not knowledge only, nor motives allied with or springing from social awareness and sensitiveness. It ought to be the inner compulsion to act, which is, paradoxically, the only real freedom. The psychological portrait of adolescence as attempted in the same study hardly advances beyond the Adlerian and Freudian scheme and completely ignores—to continue naming schools—the contribution of

Jung, which is so strategic for modern man's psychology and needs.

Of the many reasons for this deplorable omission of religion in an otherwise well-planned survey we wonder whether this is one possible cause: that theology, as taught and preached by the majority of the churches, has failed to create the dynamism needed by modern man and has alienated us from the true values of religion as powers for our daily life. We appreciate the values of positive beliefs, but, instead of offering a helping hand to modern man's need, theology has presented us with artificial schemes on things past and matters impracticable. It passes over the embarrassments of our life and creates an unwholesome duality between life and religion. There is sufficient unrest within parts of the clergy and laity about this situation to make us feel encouraged, but the fact remains that the story of the churches is the history of a tragic failure to realize its one mission: to bring people, individuals, groups, classes, races, and nations nearer to one another and nearer to the source of all human understanding—to God.

There can be no doubt as to the preoccupation of many young people with religious questions, and an educational psychology or philosophy cannot ignore this fact. Whether the content of our young people's worries, hopes, speculations, loyalties, or opposition in regard to religion pleases us or not is of secondary importance. The existence of these attitudes toward religion is too impressive to be overlooked. We should never attempt to impose our patterns on young people, but we should assist them in achieving a clearer position and lead them beyond theories to inner experiences. "Religion is not a question of belief but of experience. No matter what the world thinks about religious experience, the one who has it possesses a great treasure which has provided him with a source of life, meaning, and beauty, and which has given a new splendor to the world and to mankind. He has peace."<sup>3</sup>

This psychological approach should be supplemented by considerations of the logical relationship of religion with history, social phenomena, and science. This point is well made in an

<sup>3</sup> Jung.



address given by Arthur H. Compton of the University of Chicago. I submit two quotations:

In brief, then, the argument is this. With man's growing knowledge of nature he has become increasingly a social being. Twenty thousand years ago the family seems to have been the social unit. With improving means of communication and techniques, men have specialized more and more and have gradually become more interdependent. The world is, indeed, becoming the social unit in which it may almost be said that each person's welfare affects that of every other. The effect of growing science and technology is to make this mutual dependence rapidly more complete. In such a civilization the importance of good will among men becomes a matter of unprecedented urgency.

As a matter of historical record no agency has appeared that has been comparable with the Christian religion in promoting the love of one's fellows and the spirit of mutual service.

### *Religious Education*

Religion, then, cannot be something set apart from life; it is a force and a spirit permeating the whole of it. Religious education, therefore, must attempt to be an integrated part of any educational effort, fertilizing the total and receiving from the social and academic categories direction and advice for its approach.

The task of religious education at George School is twofold: to instruct the student in the principles and history of religion, and to have him experience the value of it in school life. We believe that the story of religion is an integral part of the cultural heritage of humanity and cannot be separated from the history of thought and progress. Even the public school has to deal with the spirit and the achievements of Christianity, with the horrors of medieval practices, and with topics like the Reformation and the roots of American democracy in New England church life. In our experience the teaching of history, English and American literature, languages and the social studies, and the sciences affords many natural points of contact for correlation with religious history and thought.

The religious life of the school, furthermore, provides a highly valued element of integration for the development of the adolescent. The psychological situation of our students is of such a

variety that, apart from exceptional cases, only one trait could be listed as common to all of them; i.e., their insecurity. Many come from orthodox or conservative homes, some from families without a marked interest in religion, some from distinctly liberal (to avoid a term like radical) homes. A great many have attended Sunday school for a longer or shorter period of their childhood. Again, their reactions to family or church influence in regard to religion are of a wide variety. The younger pupils in the ninth and tenth grades frequently hold to the pattern of home customs and opinions with varying degrees of firmness. Some are rebelling, and in the junior and senior years the doubts organize themselves more clearly and become vocal. Girls are, as a rule, less disturbed by the transition and reintegrate more quickly in their later adolescence.

Our school has to find a common platform for an objective to make young people aware of the beauty and values of religious living. Their intellectual difficulties about religion are largely caused by the terminology and religious folklore of the churches. To most students religion is a matter of a mere intellectual acceptance or rejection. But the essence of a spiritual life ought to be largely a matter of an inner experience, having an immediate impact on our relations with others. Our dealings with others must bear the mark of understanding and helpfulness. It is hoped that discipline may be converted into guidance, respect into friendship, obedience into willing cooperation.

The administration of the school will endeavor to represent to a growing extent the communal effort of faculty and executive staff. The student must be made to sense that even when severe steps have to be taken, in cases of misconduct, such steps are never dictated by anger. The responsibilities delegated to the students in a scheme of self-government and various committee activities (like the Religious Life Committee) tend toward self-examination and a deepening of the sense of inner values. We feel, many times, unequal to this task, in particular when we review the potential achievements.

This sketchy outline cannot transmit what might be termed the spirit of our school. The best we can do is to state the ideal before us, that religion ought to inspire confidence, that it should employ

healing and liberating elements in guidance and make young people aware of the dignity of a life entrusted to man by our divine Father.

### *Organization of Religious Life and Teaching*

In the following paragraphs an attempt is made to give a brief outline of our opportunities for religious experiences and expression and of the organization of our courses. Here, too, are a few hints for a better understanding of Friends' principles.

*Worship.* Meetings for worship take place on Sundays and on Wednesdays. As Friends we worship in silence. Unspoken thoughts and prayers unite with those of others in a corporate experience. This awareness of a greater unity calls forth, at times, a spoken message that expresses more than the thoughts of an individual.

At George School the meetings for worship take place on Sundays and on Wednesdays before classes. Many young people enter readily into the spirit of our meetings; others have serious and recurring difficulties. Many who have felt such difficulties for a long time later have expressed their appreciation of the silent worship; and some have been instrumental in establishing meetings in their colleges, or they have become active in their home towns.

Some of the messages given by adults, in meetings of our students, are, naturally, of a type growing out of our group life. A number of students contribute to the spoken word fairly regularly, and they are mostly recognized by their costudents as normal and desirable fellows. Some of their messages are of a nonreligious nature—their thoughts and convictions, as well as their doubts, regarding contemporary problems such as peace, social justice, and others.

*Assemblies.* An assembly, with the reading from the Bible and a few minutes of silence, is held every morning before classes. Readings have also been taken from such books as C. F. Andrews' *Gandhi*, Raven's *A Wanderer's Way*, and Rufus M. Jones' *Finding the Trail of Life*.

At the Sunday morning assembly, taking place before the meeting for worship, students hear leaders in church life, prominent

social workers, active pacifists, and outstanding educators. The assembly has a predominantly religious character. It often leads to group conferences with the speaker, to further reference to the subject in the meeting for worship, to discussions in our classes in religion and other subjects, and to informal discussions with teachers on the campus.

A great many of the assembly speakers attend also our meeting for worship. A joint student and faculty committee makes the selection of the speakers for the Sunday morning assemblies. Among the speakers during the school years 1937-1940 were: Frederick J. Libby, Douglas V. Steere, Erdman Harris, Ordway Tead, Clarence E. Pickett, Jesse H. Holmes, E. M. Homrighausen, Wilhelm F. Sollmann, Claude G. Beardsley, and Alexander C. Purdy. Student members of the Religious Life Committee and teachers take turns in conducting the assemblies.

*Conferences.* Groups of boys and girls each year attend interdenominational meetings such as those arranged at Buck Hill Falls by the Preparatory School Committee of the Intercollegiate Y.M.C.A. A number of students attend the religious summer conference arranged by the Yearly Meeting and the biannual session of Friends General Conference which has a special program for high school students.

The attendance at such conferences is encouraged by the school. To a limited degree the school assists financially in making the attendance possible. When students go to conferences during the school year, faculty members accompany them. Members of our staff also serve as chairmen of such conferences or as speakers.

*Discussion Groups.* Since 1938 informal discussion groups on Sunday afternoon have been meeting with several members of the staff. These groups have varied in size and attendance, but they seem to answer a need for free expression on religious or personal matters. Once a year we invite a speaker to introduce a religious topic in a meeting for parents and their children.

*Religious Life Committee.* A joint committee of faculty members and students meets, as a rule once a month, in order to select the speakers for the Sunday morning assemblies. A number of suggestions are received from the students, who are encouraged to report suitable speakers whom they may have heard while at

home for visits or during vacations. The committee also deals with matters arising in the course of the year, such as the singing of hymns, the reporting on conferences attended, the order before and after assemblies and meetings. The members of the committee are elected by a central student council from those who apply for membership.

*Introduction into Religious Education Work.* For the past two years we have made it possible for six or eight students to teach in the Sunday school of a Negro Methodist church of the neighborhood. Several other students assist in the Friends First Day School. Our mixed chorus has been invited to sing in some of the neighborhood churches.

*Faculty Activities.* The faculty attends the assemblies and meetings for worship. A number of faculty members contribute to our vocal ministry.

The principal and several members of the faculty are regularly called upon to serve as speakers in religious meetings or discussion and training groups in the neighborhood of Philadelphia. Churches other than Friends' have repeatedly asked for speakers from the faculty.

Several members are active in various branches of the American Friends Service Committee and have worked in labor camps during summers as members or directors. Our vice-principal is the chairman of the Foreign Section of the Service Committee and was sent on a mission to Europe in 1939. Our principal was a member of the delegation to go to Germany in December, 1938, to investigate the Jewish situation.

*The Courses.* With the exception of Division L, about which a word will be said later, all classes take courses in religion during the junior and senior years. The first two years—freshman and sophomore—students share all religious activities with the exception of the systematic instruction in class.

The study of religion is given one-fifth of the time allotted to the study of English. The classes have generally met every fifth period of their English roster throughout the whole year. The disadvantage of this arrangement is the small degree of continuity, felt the more keenly since the present plan of ninety-minute class sessions has been in effect. This report is being written [1940] in

the midst of an experiment with an arrangement which compresses the religion classes to two blocks of four weeks each, meeting in four successive classes on the English roster and leaving the fifth period for English composition, the topics for which are often chosen by the students from their religious studies. A block of four weeks is arranged for October and the second for February or March; other arrangements are similar. This system secures the necessary continuity and also makes for a division of the material into four groups or standard courses over the junior and the senior years.

Juniors study the life and teaching of Jesus and the history and principles of Quakerism. Seniors consider the most important material of the Old Testament and the Christian denominations. They study, for example, the organization, ritual, sacraments, and major doctrinal opinions of Catholics, Lutherans, Presbyterians, Methodists, Baptists, Christian Scientists, and a few smaller sects (Mennonites, Amish, Oxford Group).

A social science sequence will naturally devote some time to the social testimony of Christianity in its various phases. Thus, for example, Division S-40 undertook a study of the communal types of society as inspired by the testimony of the early Christians. The attitude of Christianity, and of certain of its denominations in particular, toward war and peace, nonviolence and international cooperation, is stressed whenever a natural interest affords such a study. Division L has occasionally established a correlation of its classic studies with an elementary investigation into the contribution of Roman and Greek culture to Christianity. Several divisions stressing citizenship have dealt with social activities of church bodies and with the elements of psychology as viewed from a religious center of interest. The relationship between science and religion and, also, occasionally between psychology and religion is touched upon in divisions mainly concerned with the study of science and mathematics.

It may be well to say a word about the course on the life of Jesus, because it differs most widely from the pattern of church instruction.

Our first attention centers around the Jewish mind at the time of Jesus. We collect information on Jewish customs and tradi-

tions from a variety of sources, such as Trattner's *As a Jew Sees Jesus*, Schuerer's *History of the Jewish People in the Time of Jesus Christ*, and Radin's *Life of the People in Biblical Times*. Many of the customs—such as baptism, foot washing, family and friendly meals or “last suppers” with bread breaking—conventionally claimed as characteristic of the early Christians are recognized as ancient Jewish customs. An introductory study into the genesis of and the differences between the four gospels aids us in contrasting the actual life of Jesus with its literary treatment by his earliest biographers and helps with an interpretation of his personality.

Our basic text for the study of Jesus is the gospel of Mark, which is occasionally supplemented by or compared with other gospels. Both the authenticity and the brevity of Mark recommend it. Our students, like all young people, are conditioned against reading the Bible. Since one reason for this is the obsolete vocabulary of the King James version, we use Goodspeed's “American Translation.” But, for the sake of literary acquaintance and comparison, the King James version is regularly used by a small group of students and in class readings. An adequate translation of the New Testament does not, of course, do away with the prejudice of adolescents against the Bible, a prejudice which many adults never overcome; but a modern translation has, in our experience, frequently helped build up a new interest in religious study.

The study of the gospel is supplemented by individual reading of a great variety of material on the life and the ideals of Jesus. This ranges from fiction like Oxenham's *Hidden Years* or *Golden Years* to Sholem Asch's *Nazarene* and covers many theological viewpoints. The material is adapted to the needs and theological leanings of the individual student and is discussed with him before it is assigned. The student reports to the class about his reading and shares with the whole class his reaction. In order to give more color to such reports and to arouse the interest of other students for a book, several well-selected and characteristic quotations are read in class and built into the reading report at their proper places. Such a cooperative enterprise creates the basis for a discussion and furthers our common study of the

gospel, which we interrupt numerous times in order to listen to such reports.

Now and then such reading of the reports stimulates the student to go into the study of a special and limited topic. One junior recently, of her own accord, wrote a paper on the status of medicine at the time of Jesus. Another investigated the type of religious communism practiced by the Essenes. In doing so, again a variety of material was utilized and the elements of research work were acquired on a level suited for this age. (For the two themes in question the available Biblical literature and numerous commentaries were employed, as well as sources like the *Encyclopedia of the Social Sciences* and literature on the history of medicine.)

In a Quaker school it is only natural that questions of social and international justice and peace meet with widespread interest. Topics like "What Did Jesus Think About Peace and Non-violence?" or "The Quaker Basis for the Peace Testimony" are among the standard themes considered. The interest in denominational differences which adolescents have at this stage of their development arouses discussions of the sacraments, ritualistic practices of the various churches, and dogmatic beliefs. Important as these topics are, we have to leave the burden of their study to the later courses. Brief answers suffice to remove prejudices or lack of adequate information until time allows us to go deeper into their study.

In the discussion of religious education it is hard to separate content from method. Religious instruction needs to remain flexible enough to adapt itself to new situations. The teacher must be ready to answer the precise and rationalistic type of question which the student asks without imposing an opinion on him or leaving him in too great insecurity. Quakerism tries to make young people see that faith is by no means identical with accepting factual or semifactual opinions about God, eternity, Jesus, or the sacraments. Since Quakerism strives to be an attitude toward life and its problems, a way of life rather than a system of thought, only tentative answers can, at times, be given. The primary objective of the religious instruction, then, is to foster a sane and scientifically sound method of seeking the



necessary intellectual and spiritual food. It should also encourage trust in the experiences of life itself, the teachings of which are beyond science and literature.

A word may be added about our procedures in other courses. We endeavor to have all studies supplemented by outside reading. The study of Quakerism may branch out into a variety of supplementary topics, such as biographies of Fox, Penn, Woolman, and Elizabeth Fry or a study of the humanitarian activities, Quaker customs, and many others. Similarly a study of the Christian denominations will follow largely a historical course in class, but the home reading will expand to special phases of the theme. Biographies of Luther, Calvin, Wesley; novelistic material (*Children of God*); contemporary biographies like Parker's *The Incredible Messiah* (Father Divine); a study of the Mennonites or Amish; a plainly descriptive enumeration of sects like Braden's *See These Banners Go*; parts of Bates' *American Faith*; a special study of one denomination, for which the student gathers most of his material by writing to his home church or by visiting a church in the neighborhood—these are some of the supplementary fields going parallel with our classroom work.

In a good many cases we deviate from this correlation and allow the student to read on topics in which he may have a personal interest but which are not immediately related to his classroom work. Seniors have the privilege of choosing their own reading material on the approval of the teacher as long as their work proceeds satisfactorily. Some of our "best sellers" are: Wicken-den's *Youth and Religion*, Link's *Return to Religion*, Whitney's *Elizabeth Fry*, Mann's *Joseph in Egypt*, Clinchy's *All in the Name of God*, Abrams' *Preachers Present Arms*, Myers' *Religion Lends a Hand*, Gummere's *Quakerism and Witchcraft*, Pringle's *Record of a Quaker Conscience*, Jones' *Swords into Ploughshares* and *The Double Search*.

About 12 per cent of all our books circulating from the library are assigned or have been chosen for this reading. Our newspaper and pamphlet files contain several thousand clippings on a variety of topics, such as religion and literature, peace, the Bible, the church in Germany, and the Jews. A special set of handbooks to be used by whole groups is not included in this

figure. The reading list of an average student is illustrated by the following samples covering the work of two years:

*Junior Year*

Ash, *The Nazarene*  
Axling, *Kagawa*  
Best, *Rebel Saints*  
Talbot, *My People of the Plains*  
Trueblood, *Essence of Spiritual Religion*

*Senior Year*

Bates, *Biography of the Bible*  
Elkinton, *The Doukhobores*  
Gregg, *Power of Non-Violence*  
Radin, *Life of the People in Biblical Times*  
Wieman, *Popularity*

If an opportunity affords itself or a natural correlation with another subject is presented, we are at liberty to deviate from the scheme of our four courses as mentioned above. Some illustrations for this are topics chosen sometime during a senior course: "Nonviolence," "Communal Living in Early Christianity and in Later Christian Sects, Including Contemporary Movements," "Religious Reform Before Luther," "The Humanitarian Work of Friends Since 1914," "The Social Message of Christianity." Such subjects, however, are favored only when a strong group spirit expresses a concern for such a study and when supporting work in other subjects has preceded or parallels it.

*Combination of Religion, Social Studies, and History in Division L.*<sup>4</sup> In order to create a balance to the predominantly linguistic studies of Division L students and to prepare them to some degree for later work in American history, this sequence enters upon a combination of religion, the social studies, and history a year earlier than do other divisions and continues it for two years (tenth and eleventh grades) with the double amount of hours as compared with other classes, leaving the senior year to the exclusive study of religion with the usual amount of classroom time. This experiment has been going on since 1938 with encouraging results.

Some of our major topics during the tenth and eleventh grades were: "The English Revolution and the Rise of Quakerism," "The French Revolution and the Church in France," "The In-

<sup>4</sup> See pages 350-351.

dustrial Revolution of the Nineteenth Century and the Rise of Socialism," "Imperialism under Frederick the Great and Bismarck: the Churches in Prussia," "The Russian Revolution and the Church," "The Jewish Situation in Europe and America."

*Art, Music, and Religious Poetry.* Our classes occasionally employ church and religious art and the masterpieces of sacred music. The Carnegie Fine Arts Set for Secondary Schools and the Junior Carnegie Music Set contain good illustrative material. The music set happens to be in the religion classroom and is, therefore, particularly convenient for use. The widespread interest of our hobby group in classical music and its well-planned record programs have also contributed materially to the interest in sacred music, particularly in the creations of Bach. The Christmas and spring musicales always include several numbers of sacred music. At the Sunday evening vesper service, voluntarily attended by most students, there are both instrumental and vocal selections.

I regret to say, however, that our hymn singing has not received a share large enough to make it a more vital part of our community experiences. Here, also, we are still experimenting.

Once a year a group of students arrange, with the assistance of their English teachers, a Sunday morning program during which they read religious poetry or poetical Bible passages. A number of students each year choose religious subjects for their senior essays, and a students' assembly in the spring of 1940 arranged for the reading of these essays.

*Guidance.* There exists a great desire among the students for unplanned discussion which cannot always be satisfied in the classroom. Questions on immortality, the reasons for modern superstitions, inferiority feelings, mental hygiene and religion, the use of alcohol and tobacco, and petting are likely to come up at the most unexpected moments. As far as class discussion seems to be helpful, we regularly enter into it. In a number of cases, however, the students hesitate to raise this type of question in class, and then we arrange personal interviews.

Private interviews frequently reveal the degree to which religious influences and the basic needs of adolescents must be considered together. In the liberal environment of a Quaker

school, numerous students from orthodox or conservative homes experience changes or doubts or become confirmed in their home beliefs. Quaker children are equally unpredictable. It hardly needs to be said that any advisory guidance aims at a strict denominational neutrality. The number of students joining the Friends, while here, is very small (between two and five a year); the number joining after graduation is considerably larger. Often we find ourselves advising an individual to get closer to his home church or to join a church of his own preference. It so happened one year that I strongly encouraged an Episcopalian boy to join the Catholic Church, which was his desire, and at the same time, in cooperation with his pastor, prepared a Lutheran boy for his confirmation.

In surveying the questions most frequently asked us, these few topics may be mentioned here as typical of those covered: life after death; the sacraments of the Catholic Church, particularly confession; dogmatic peculiarities of certain churches, like trinity, virginity of Mary, communion, the divinity of Jesus; the miracles; the silent meeting of the Friends. Some of the personal problems have been: "my inferiority feelings," "my parents' indifference to religion," "I do things that no one ever did before," "My parents do not get along with each other," and "Why perfect honesty toward such and such a teacher?"

It is not always possible nor perhaps desirable to make a clear distinction between religious counseling and personal guidance; i.e., mental hygiene or just friendly advice from teacher to student may be worthless without a religious reference. Frequently these conversations grow out of an ordinary contact on the campus or after class, and they are always as informal as possible.

### *In Conclusion*

There is no reason to reiterate to what an extent we feel under the weight of the multiplicity of problems arising everywhere. We have no mysterious methods guaranteeing success. The Philadelphia Yearly Meeting of the Society of Friends, which owns our school and directs us in matters of general policy, is a body representing no particular educational tradition, except

for the faith and practice of the Quakers in general. We feel, however, that we are benefiting from the aspirations of our community and from its faith.

We cannot possibly draw a balance of results in religious education. If we should have any success at all, we must attribute it, paradoxically, to our own insecurity; but the incessant search for the better must never be permitted to assume the proportions of confusion. When it comes to answering their thousand questions, however, we are not ashamed to have our young people share our embarrassments. This may be the one small contribution which we have to offer to religious education.

Religious education is an unsolved problem for the American school system. The Sunday schools of all Christian and Jewish denominations, including our own, feel their inadequacy before this task. The public schools are aware of the dangers to our national unity arising from the claim of large churches for segregation of the denominations. And perhaps the private schools have a larger mission to fulfill than they realize at present. The first step in this direction would have to be a religious renaissance of parents and teachers and a new theism avoiding an indoctrinating and largely dogmatic theology. American education has made such an encouraging progress over the past twenty years that we feel hopeful about a deepening sense of responsibility toward religion, too. We have mustered enough courage to attack even such a delicate problem as sex education, which embarrassed centuries of people before us. Let us hope that another generation of parents and teachers will reorient themselves sufficiently to abandon their reticence in religious matters as they have determinedly done in the case of sex education. The responsibility as well as the reward will be higher than in any previous quest.

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# THE GERMANTOWN FRIENDS SCHOOL

GERMANTOWN, PENNSYLVANIA

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The Germantown Friends School was founded in 1845 by members of the local Friends' meeting to provide what was then called a "guarded education" for the Friends' children of the community. A few years later it was decided to open this very small institution to children of neighbors who, though not Quakers in membership, were in harmony with Friends' views.

Now, after almost a century, the school has grown in size with the community and numbers over 600 pupils and teachers. Germantown and Chestnut Hill were in 1845 rural suburbs of Philadelphia, eight and twelve miles respectively from City Hall. They are now parts of the continuously built-up city and, though still regarded as suburbs, have lost all rural character. The population is over 100,000 without counting adjacent districts, some beyond the city line, from which a few of our present pupils come to us. Besides several large public junior or senior high schools in or on the edge of our district, there are ten or more private schools, ours being the only one carrying coeducation through all years from four-year kindergarten to twelfth grade.

The various school buildings, the large Friends' meeting house, the Friends' Free Library (of some 35,000 volumes), a Friends' home for the aged, and two graveyards occupy about half of a large city block, which is residential on two sides and mainly business on the other two. A large church, a bank, and several shops and residences occupy the rest of the block. What once was generous playground space is now in part devoted to parking space for automobiles and in part to the two kindergartens and other relatively new school buildings. But, with management, various gymnasium classes find outdoor accommodation in good weather, others cross the street to the playground of the Germantown Boys Club, and all find room to go outside at their several recess periods. For athletics and other afterschool play,

the school has two attractive and well-equipped fields at a few minutes' distance by bus or auto, and less than fifteen minutes on foot. The girls use one of these and the boys the other. Each field is provided with lockerhouses and good tennis courts as well as the regular graded and well-turfed spaces for hockey, football, soccer, baseball, and lacrosse.

On the main school grounds there are separate boys' and girls' gymnasiums, each with locker facilities and provision for medical attention; separate four-year and regular kindergartens; a forge; the extensive three-storied schoolhouse for all grades from I to XII; and the other buildings already mentioned. Of the latter, the school makes daily use of the library, sharing its services with the community, and occasional as well as periodic use of the meeting house, where the eight upper classes attend Friends' meeting every Thursday.

Tuition fees are \$300 per year in the seventh grade, rising to \$325 the next year, \$350 for the next two years and \$400 for the last two. Very little of the school's income is from endowment, though funds have been set aside for special purposes such as scholarships and teachers' retirement. The school contributes equally with the individual teachers to the building up of funds to make possible appropriate retirement arrangements. The school is not run for profit. Salaries are planned so that teachers receive most of the income, but the budget provides for repairs and replacement of property. The maximum salary cut during the worst depression years was 10 per cent—usually less—and the cuts were not of long duration.

Germantown Meeting makes an annual grant to provide scholarships, and a further sum has recently been raised each year for this important purpose. Scholarships are not limited to Friends or even to students of high academic rank.

The Upper School faculty in 1940-1941 numbered 25 who did full-time work, not counting office staff or interns. Seventeen were in service before our association with the Eight-Year Study and 5 have taught here for twenty-five years or more. Thirteen of the 25 are members of the Society of Friends.

A valuable ally in our work is a strong Parents' Auxiliary, with a complete organization for the school as a whole and subcom-

mittees for every grade in the school course. Meeting at times to discuss with teachers the common concern for the children of the school, at other times in evening classes for self-improvement, the Parents' Auxiliary is an effective agent in making the school the center of interest in the larger community, and may be counted on to interpret educational policies and promote the interest of the school.

In the years immediately before the present decade the Upper School laid stress on preparing pupils for College Board Examinations, but there has been much preoccupation with newer ways of education that the more experimental schools have recommended to the country.

A marked Quaker religious influence has generally prevailed among us, but the school has not sought to win non-Friends to actual membership in the Society of Friends. Many Friends, especially those not close enough to the life of the school to have firsthand knowledge, sometimes question whether the Quaker testimony should not be more emphatically borne, and have thought it a bad sign that comparatively few non-Friend graduates seek membership with Friends.

Meanwhile the institution doubled in numbers and equipment from 1910 to 1930, and in consequence found itself facing questions of definition and aim. Was the school to become a little more progressive, a good deal more so, or possibly less so? Was it to emphasize Quaker traditions more or follow an undenominational religious trend?

Our participation in the Eight-Year Study came rather suddenly, and may have been a fortunate interruption in the deliberate way in which we had been approaching decisions about our deeper purposes. This new association has been no easy one. Some of the suggestions of the Directing Committee did not seem to fit directly into our situation. We were more easily convinced that many of the old educational devices and theories were inadequate than that certain experimental new ones were the right ones for us.

The influence of the Eight-Year Study on its member schools has been toward a scientific assessment of the results which the several schools have professed to seek. It has invited a clear



statement of local aims plus the application of definite devices for measuring the outcomes. But in studying our purposes we, like others, have found many of them to be living, intangible, not easily reduced to a true statement. Methods of evaluation that grow out of a pragmatist philosophy and that look to a secular democracy are likely to be challenging, but not completely satisfying. We think that we have learned much from the Eight-Year Study, both of a democracy that is admirable and of ways of measuring that are revealing; we are also increasingly convinced that we have made some discoveries of our own and that we shall miss our right destiny if we fail to continue to make such discoveries. For we are, by purpose of our founders, by our own experience, and by the expectation of all concerned, a Quaker school. The next few pages must be given to a consideration of what this means to us.

Let us, then, ask questions such as these: What has it meant in the past to be a Friends' school? What is the present trend at Germantown Friends School? What does Quakerism mean to us now? What has Quakerism to offer those of our school community who are not Friends?

It is useful here to turn to one of the most recent books<sup>1</sup> on Quaker education, which promises to carry weight among American Friends of the present and which looks both to the future and to the past. The author, Dr. H. H. Brinton, gives a list of ten policies of Quaker education of the past, which we now quote to offer an outline for our further discussion. "These items," says Dr. Brinton, "represent tendencies and policies, not necessarily accomplishments." Here follows the list:

1. Development of a sense of belonging to the Quaker Community.
2. A religiously guarded education.
3. Dedicated and concerned teachers.
4. Nonviolent discipline and methods.
5. Appeal to the inward sense of rightness.
6. Equal education of both sexes.
7. Equality in education of races and classes.

<sup>1</sup> Howard H. Brinton, *Quaker Education in Theory and Practice*, 1940, pp. 52 ff.

8. Moderation in dress, speech, and deportment (simplicity).
9. Scholastic integrity.
10. Emphasis on practical subjects in the curriculum.

Not all of these points or policies are of equal concern to us here, and in one instance we will group two of them for convenience.

### *Policies of Quaker Education*

1. *Community.* Less stress is laid today by Friends on belonging to a peculiar and unworldly community than in the distant past, when Quakers so overdid their separateness as to bring about natural reactions on the part of the younger members. It is probable that that reaction has gone too far, and that a move in the opposite direction is now in its beginnings.

The sense of community today is strengthened by emphasis on positive interests and measures, such as the relief of suffering in wartime, the study of problems arising from our confused social order, and the numerous responsibilities which various meetings take on as routine or emergency cares. Providing playground facilities in Germantown for underprivileged children, raising money for Red Cross or for the local Welfare campaign, collecting clothing or books to send where there is a call for such help, and numerous other projects varying from year to year bring a return to our pupils who engage in them. Joint activity for unselfish ends is creative of community spirit of the right kind. A few of our graduates have spent vacation time at work camps, and communicate to us the meaning of these projects. A few more of our graduates or older pupils than before are now joining the Society of Friends, but there is no direct attempt to urge this step. It is rather the aim to induce all to adopt as much of the Friendly attitude as they find individually helpful.

2. *Guarded Religious Education.* The phrase "guarded education" is not a favorite one among Friends at the present time; it has long suggested narrowness as opposed to enrichment, and a faulty psychology of ineffective repression. Nevertheless, most of our parents, whether Friends or not, wish a present-day equivalent of the older "guarded education" that is sound and that their children will respect.

A wholesomely busy youth is not merely forbidden or warned. In this connection the book of *Faith and Practice* quotes from John Woolman:<sup>2</sup> "Divine love imposes no rigorous or unreasonable commands, but graciously points out the spirit of brotherhood as the way to happiness, in attaining which it is necessary that we relinquish all that is selfish."

The school has a program of Biblical and other religious instruction, integrated in the Lower School with other subject instruction but given separately in the older classes, including studies and readings of social and ethical import. Only one period a week in each class is reserved for this purpose, but the same interests come up in many of the other courses—especially as the "Bible teachers" are not generally specialists in religion, but rather the regular teachers who know their classes best. In recent years, however, several of these courses have been given by an unusually well-qualified alumna and former school-parent.

A cooperative committee has recently come into being, with membership representing parents, faculty, alumni, administration, and the school committee, which aims, as it gradually gains experience, to promote and extend the interests of the school which may be called religious or spiritual. In May of 1940 this committee sent a questionnaire to all of the families represented in the school, inquiring in some detail what value parents attach to the various types of instruction, or contributing phases of school life, and inviting suggestions. About 140 replies are now being studied by the committee. The answers seem to value most of all the spiritual qualities in the school atmosphere, including friendliness, toleration, integrity of scholarship, sympathy and imagination in the teaching, the spirit of sharing and of fairness in the conduct of school activities. The program of Bible study, the Friends' meeting, and the home and church association also were recognized. It is hoped that this step and subsequent ones may count in drawing the school community more closely together on what should be its deepest and most significant level.

3. *Dedicated and Concerned Teachers*. The book of *Faith*

<sup>2</sup> *Journal*, Rancocas edition, p. 406.

*and Practice* remarks: "Friends have always held the view that a religious environment, such as is created by 'concerned teachers,' is essential to a right school atmosphere. Religious training of the child cannot be wholly relegated to a department nor to one day in the week."

If during the past thirty years much attention in the selection of new teachers at Germantown Friends School has been put on their competence to teach and on their academic qualifications, it was in part the intention to raise the standard in these respects and in part the confidence that the previous stress on *dedication* and *concern* and membership in the Society of Friends would carry over its benefits and not its possible previous shortcomings. Many of the teachers who were not Friends when they were appointed have subsequently become Friends.

Probably one of the newer phases of Quaker education in the twentieth century, notably seen in the colleges, is the replacement of stress on formal membership in the religious society by stress on appropriate and harmonious functioning in the school or college group. Friends and non-Friends have sometimes seemed quite indistinguishable in their contributions on faculty or alumni committees.

The writers of this report do not feel very competent to deal with this section, whatever their personal ideas may be about how they should have been selected and who should replace them. But they wish in concluding to testify that they have found the attitude of high but reasonable and happy expectation of their pupils the most powerful daily incentive to a dedication that is sane and genuine, to a concern that renews itself from this as well as from other sources.

4. *Nonviolent Discipline and Methods*; 5. *Appeal to the Inward Sense of Rightness*. These testimonies have for three centuries been fundamental in Quaker theory, and at times have received convincing confirmation in application, in the schools, and in general. The testimony of early Friends against taking human life, even after judicial process, was the more firmly held because of the conviction that in every human being something of the divine resided, at least an aptitude for receiving Divine guidance. This attitude of Friends is so well known, and is shared by so

many groups and individuals, that it need not be emphasized in this place.

In its application in school or in family life, the appeal to the inner sense of right and the avoidance of coercion have become familiar to modern educators. Discipline in our school has improved in recent decades through increased appreciation of the rightness and utility of this old Quaker and newer progressive testimony. It is not only possible but marvelously fruitful to depend more on a school atmosphere in which cooperation and consent leave coercion a minor place.

At the moment there is no organized Student Council at Germantown Friends School. We do not regard this lack as a symptom of trust in authority over agreement, but as suggesting an absence of red tape and formality. Even in the relations of administrators, teachers, school committee, and parents, the features of organization and definition seem minor compared with the familiar practice of cooperation. Executive authority is exercised as timesaving in matters that do not seem to require democratic debate; confidence and the knowledge that appeal can be made are safeguards here. All factors in the school community are sensitive to the opinion of all other factors, and the children themselves readily make their attitudes known without friction or abuse.

6. *Equal Education of Both Sexes.* The success of our coeducation for many years may lead to complacency in this matter on the part of teachers who readily accept what seems a good state of affairs—with too little analysis of what makes coeducation work. In the junior high school years, as many parents and teachers feel, the boys and girls do not cooperate so well as both earlier and later. The mutual respect of boy and girl seems to advance in the eleventh and twelfth grades as they jointly undertake more responsibilities for others and head the school activities. Our satisfaction with things as they are may be because we expect too little. More development of the techniques of cooperation has recently been suggested. Our visitors rate our coeducational life as one of our strongest points. We owe this advantage, in no small degree, to sensible and wise planning in our Lower School.

7. *Equality in Education of Races and Classes.* Here there is no occasion for complacency. We are prone to blame the shortcomings in American social life for the shortcomings in school. But schools must do their best to raise the standards of society. That is what they are for. The presence of a few Jewish students in most of our classes, without our feeling very aware of them as different from others, marks an advance over fifteen years ago, when we had almost none. Meanwhile our tuition fees are beyond the means of some of our alumni parents and of a large part of the Germantown community. Our scholarship funds are supplemented by the annual raising of several thousand dollars to retain a number of pupils whom we must otherwise lose. It is true that a few of our children have far too much money spent on them for reasons more of pride and indulgence than of real service. Much can be done to encourage children who have little spending money to see that the situation does not justify them in feelings either of envy or of inferiority.

Some Friends are uneasy at the absence of Negro children and teachers in nearly all Friends' schools, claiming that the motives for this exclusion are incompatible with the Quaker testimony of equality. Others reply that the ideal of equality cannot be achieved in a short time, that the welfare of Negroes is better promoted by supporting separate Negro education, that it would be disturbing to bring Negroes into our schools before there is a good deal more social equality in the relations of adults of both colors. Whoever is right about this, clearly our practice lags behind our theory.

Although we are a day school, a large staff of workers is employed to care for the buildings, the heating, and the serving of luncheon. Both colored and white work together without friction. In 1936 the seniors dedicated their yearbook to the colored janitor, and his picture in the place of honor was inscribed with words of friendship and respect.

Since our association in the Eight-Year Study, the school has made progress with pupils of moderate academic aptitude. These now receive a better education than before, and have less occasion to feel unhappy or inferior; pupils are respected as persons on their general merits; "flunking" is more relative than

before and comes more often from weakness of purpose than from lack of "gray matter."

At the suggestion of some of our parents (or honor students) and with the approval of faculty and of students who were consulted, commencement honors in 1940 were made somewhat less conspicuous at the graduation exercises than in former years, although that year's senior class was above the average in achievement and in their appreciation of true scholarship. Some of our teachers have faith that the quality of this appreciation can be expected to advance as we are able to escape from the influence of marks and of competition. Pupils as well as others are interested in these pros and cons; any change in our use of marks will be made in consultation with them and their parents.

In our acknowledgment of "equality" as an ideal, we are facing front but are not moving fast. The movement has been faster, however, since we joined in the Eight-Year Study.

8. *Simplicity*. This subject has already been discussed to some extent under earlier heads. It is a very difficult one for adult Friends to be clear about, let alone the children and their schools. Our parents' organization, especially in the meetings of the parents of the several classes, at least gives the subject frequent attention. Simplicity must be cultivated as a positive aid to a life well aimed. Even when incomes are reduced, the virtues of simplicity are not invariably gained, except as the children themselves come to know them as beneficial. The differences between a breadth and enrichment of life that is valid and one that is wasteful cannot easily be agreed upon and convincingly announced by parents. The encouragement of vital constructive interests in studies, hobbies, and group activities is the best answer, but we are still seeking for others.

9. *Scholastic Integrity*. Our visitors and critics, who find us far from perfect in important respects, are prone to grant us too much credit in this field. It is indeed a question how far teachers should go in stressing precise truth in the acquisition of the details of knowledge. Mathematics and science carry with them appropriate methods of checking the truth of their operations; but in other studies, language can be carelessly used unless teachers and pupils strengthen each other in critical technique to guard justice of claim and of intention.

Dr. Brinton says that integrity has been a characteristic quality of most Friends' schools; that there has not been improper "window-dressing in their printed announcements, which have sometimes exhibited extraordinary feats of understatement." In these times of glamour and excessive claim in advertising, we find our adult school community sensitive to any careless trend toward misrepresentation. The word "semantics" is a new one in our vocabulary, but distrust of loose generalization and watchfulness of words that readily change their meanings are concerns that Friends maintain with care.

The work of our pupils in music and the arts is generally free from elaboration or pretentious artistry. Sincerity is a first principle in all expression. We think our children have good habits in these connections.

But our attitude is not so complacent as the above words may make it seem. It is much easier to avoid obvious falsehood than to achieve truth in really big and important ways.

10. *Practical Subjects.* The discussion of this point in Dr. Brinton's book is mainly of historical interest and applies in especial degree to the pioneer work of English Friends in their schools, which experimented with new subjects, especially scientific ones, before as well as since the time when the English public schools added laboratories to their plants.

Under the influence of the Eight-Year Study our school has endeavored to improve its curricular offerings—as described in the section on "Program Changes"—and now gives more place to scientific interests and to the practical uses of several subjects.

There are other testimonies of Friends besides these ten, though some, like pacifism, are implied in two or more of them. The peace testimony is perhaps the one with which our alumni feel they have been most impressed when pupils. It goes, of course, much beyond the refusal to participate in war, and recommends a way of life, personal and national, which removes the occasion of war. Patriotism to Friends, as to many other groups and individuals, has an important meaning and appeal in times of peace, and carries with it an earnest sense of the obligations of good citizens; one of these obligations is to influence their government to an international policy of the good neigh-



bor. In times of war, especially, Friends feel deeply not only the obligations they owe their country but also those that they owe to all men. Individual Friends often have tragic choices to make in such crises, and not all make the same interpretation or follow identical courses. Final authority does not reside in any overseeing body of heads of the church, but in the mind and will of God as felt and apprehended within each person. In the war stress of 1917 and 1918 tolerance of the several conscientious attitudes that appeared in the school was felt to be an important duty and example, with gentleness and forbearance toward those of such intense conviction for or against warlike activities that they fell into impatience with all who thought differently.

It may be said that Friends in England were pioneers in certain phases of democracy long before the tolerant century when all citizens there, including women, were granted full rights as citizens. American Friends are probably more thoroughly democratic now than in some earlier periods, but they are not satisfied with the theory of a democracy or an education that is secular. They would feel with Dean Henry W. Holmes, writing in the *Atlantic Monthly* of July, 1940, that the greatest need of the schools of our nation is religion. The question is often raised whether democracy or religion can survive much longer. Friends might answer speculatively that separately neither has a good chance, but together they would command a profounder loyalty through a period of adversity than either could do alone. This attitude in our school explains the slowness with which we have been able to translate and incorporate into our school life many of the newer educational devices that have been developed and justified in school situations where the democracy aimed at was secular. Often we need something very like the particular thing proposed, but our own body's health may not be well sustained if new vital organs are thrust too quickly in among the others now in adjustment.

The principles and testimonies that have been described in this report have not been uniformly followed either before or since our admission to the group of schools in the Eight-Year Study; they suggest the direction of our aim, and the explanation of the fact that our school group has been blessed by much

unity; it has also, of course, been troubled, as groups are, by the lack of it on occasion. Membership in the Eight-Year Study is helping us to examine our aims and procedures more critically, to discover which of them need adjustment and which greater devotion. It is probably true that the value of our best Quaker traditions will be increased by both adjustment and devotion; we trust that the next eight years may bring progress in both respects.

### *Program Changes*

We hope our present program means a sensitiveness to new currents, along with a will to maintain the solid values long credited to our school. The new freedom was limited for us in two ways: in the first place, we had to consider the restrictions of existing equipment and personnel; in the second place, we had to provide for the requirements of the few colleges which did not participate and of certain competitive examinations for scholarships. Accordingly the lines of the program were adopted to permit a boy or girl to prepare for college, whether the college shared in the project or not. But in spite of the limitations of our freedom we may fairly say that the school has followed its collective judgment in the education of its boys and girls, almost unhampered by college prescription.

Our modifications apply to the final six years of the school. The main change was an increase throughout these six years in the amount of history and science for our students, to give them a more substantial basis of knowledge for dealing with the situations which they would face in common after school and college. Along with this went the desire to use the early years for the discovery of special interests, and the later years for the development of well-defined interests and aptitudes.

In order to allow more time for history and science, we revised the arrangements for foreign languages. In the eighth grade nearly every pupil takes either French or Latin; in the ninth grade he usually continues the language begun in the eighth grade, and may take a beginning course in the other language. Thus he has opportunity, if he continues both languages to the end of his school days, to study one language for

five years and the other for four. Those who do not begin a second foreign language in the ninth grade have a course which supplements their work in English and history and aids them in the organization of the work of the later grades. Science carries through all three grades; history goes on through the seventh and eighth grades, but is omitted in the ninth grade by those who study a second foreign language.

The curriculum of the tenth, eleventh, and twelfth grades is planned to permit the student whose aims are clearly directed toward special fields to arrange his work accordingly, but we do not wish to encourage the idea that pupils as a rule can show unmistakable bias at this stage in their development. We try to guard against shutting off from any boy or girl the resources of a study merely because it is hard or because another study catches his fancy for the moment.

English and history are required of every student in grades X, XI, and XII. An account of the history course appears later. Our Bible courses are also included in the requirement, and physical training is continued, with increase in our tendency to adapt the instruction to individual needs rather than to devote time largely to class drill. Mathematics is required through the tenth grade.

In the tenth grade each student, in addition to taking the required courses, elects two fields of study from the following: Latin, French, science, art. In the eleventh and twelfth grades he takes each year at least two fields of study beyond the required work. Mathematics, German, geology, economics, music, and public speaking are added to the electives for the final two years.

*The Social Studies Program.* In the reorganized plan the social studies are offered to all grades of the junior and senior high school, and required of all pupils except those in the ninth grade, where an elective course is given. The work of the Lower School which leads up to that work may be summarized as follows: in the fifth and sixth grades the emphasis is on geography, in the seventh and eighth on history, though it is a matter of emphasis and not of separation. In the fifth grade we study the geography of the United States, with its effect on history and on the current life of our people, and the geography and commercial

and cultural life of Mexico and Canada. In the sixth grade we take up the geography of Europe, Asia, and Africa, with a survey of transportation and trade.

The seventh grade studies the history of the United States in some detail, with particular emphasis on the colonial period and on the western expansion of the American people. A study of current events is an active part of the work of this year. In the eighth grade we try to find out more about the social, economic, political, and international problems of present-day United States. We attempt to see our place in the world around us and to discover what possibilities there are for public service in adult life. Owing to program requirements, it is not possible to offer a full course in the social studies in the ninth year. In this year the English Department has arranged its work to include considerable social studies material.

In the senior high school the social studies are required of all pupils. The three years' course is planned as a whole; the continuity of human history is observed.

1. *Tenth Grade.* Briefly summarized, the course here pursued is based on a study of the ancient Oriental civilizations, the Greek and Roman world, the rise of the world religions, the barbarian invasions, and the period from the so-called Dark Ages to the Crusades. As it seems natural in such a course to start with prehistoric man, we lead off with a brief survey of the American Indian as an index of civilization—as he appeared to those white men who discovered him in 1492, when the prehistoric period of American history ends. An inquiry as to the existence of a similar standard of life elsewhere leads naturally to the Old Stone Age in Europe. Only the briefest time can be allowed for the narrative of events in the history of the civilizations which arose along the Nile and the Euphrates and elsewhere in the Near East; the principal attention must be directed to the study of the institutions of civilization as they developed, and to the romance of modern archaeology. The great story of Greece and Rome is told as the background before which the history of later times must take its place; the past is linked to the present in a study of those institutions which have survived to influence our life.

2. *Eleventh Grade.* This year takes up the history of Europe to the end of the French Revolution, with the main stream of attention running through English history, ending with an account of the colonial expansion of Europe, with particular attention to Spanish America and such matter as is usually included in American history to the end of the American Revolution. The aim of this year is to draw down through the centuries of European history those threads which are woven into our own life and to prepare the way for the chief thesis of the twelfth grade.

3. *Twelfth Grade.* The thesis would be that the history of the United States and the problems of our people are not isolated phenomena, but are intimately related to the history and problems of the rest of the world. As a course of study the year's work may briefly be described as European and American history since 1800, with a summary glance at the story of China, Japan, and Latin America.

In considering this three years' course as a whole, it is obvious that much has been omitted which finds a place in regular history courses. The task of the teacher in charge of each year is to direct the progress of the class so that as much as possible may be brought to general attention and knowledge by wide outside reading along individual lines of interest and by group or individual reports. A three years' notebook is kept, which lends itself to a topical as well as a chronological development.

*The Science Program.* According to the complete plan, science is studied by all pupils in the junior high school grades. In the seventh grade we spend our time on the earth's biography, studying the effects of the forces of nature on the crust of the earth and forces of life as it has appeared and developed. In the eighth grade our subject is the human body, including attention to health and sanitation. In the ninth grade we take up what man does with his environment, and what machines he has made to help him, getting for ourselves some idea of what is ahead in biology, chemistry, and physics and discovering how they are in reality inseparable in solving problems of a living world.

The elective studies begin with biology in the tenth grade, and we aim to give pupils an idea of the great variety of living

structures and their curious adaptation to the same functions, with a respect for the entire living world and a curiosity about it. In the eleventh grade, chemistry is given with the object of laying a substantial foundation upon which future development may be built. In the twelfth grade, chemistry is continued as qualitative analysis; in this course we endeavor to keep before the student the principles already acquired and to afford him the opportunity to use these principles in real situations. Physics is also given in the twelfth grade, with the content materially increased over the usual course. Many of the very elementary ideas that are covered in earlier grades are omitted. A course in general physical science is also open to both the eleventh and the twelfth grade. This course is of a nonspecialized, appreciative nature.

*Other Fields.* If the recent changes in English, mathematics, dramatics, and foreign language seem to us minor in comparison with those in the subjects already discussed and in the arts, it may be largely because the changes in the former subjects were initiated before our participation in the Study.

1. *Languages.* The four-year Latin course involves less reading in Caesar than the five-year course, but the competent student will be able to carry college Latin after finishing either program. Those who elect the shorter course in French have less experience in speaking, and aim more singly at a useful reading knowledge.

2. *Mathematics.* In the mathematics of grades VII to IX, arithmetic, algebra, and some geometry are presented in relation to one another for the sake of a truer understanding of each; but the development of sound technique is not neglected. More specialized study is available in grades X to XII, with orderly and critical thinking practiced through demonstration in geometry.

3. *Art, Music, and Dramatics.* In art and music, however, there has been an extension of courses; the work now done is dispelling the prejudice that these fields do not engage a seriousness or intellectual vigor comparable to that exercised elsewhere. The activities of our young artists, actors, and musicians as well as of their teachers flow more and more over and across the de-

partmental walls, affecting the taste and winning the interest of much of the school body and contributing to school unity. The respect shown by the whole school family, including parents, for the achievements of orchestra, of glee clubs, and of those who draw, paint, decorate, act, or speak is hardly less than the approval shown to successful athletic teams.

Every year the students taking the senior elective course in public speaking, not at all limited to persons of superior talent, put on informally for assembly what we call a Malvern Festival—a series of plays or excerpts of plays held together by an idea like *As Playwrights See History* (unity through historical backgrounds), *Varieties of Dramatic Experience* (unity through representative types), *They All Wrote English* (unity through a common language), *It Began in Greece* (unity through chronological sequence). Partly in order to spend time on interpretation and partly to make the students see the supreme importance of sincerity and imagination, we happened to anticipate by several years the *Our Town* absence of realistic sets and elaborate props. Our Art Department (with whom, of course, we have frequently cooperated in staging more formal plays) has also stressed the frequent irrelevance of the literal as well as the importance of imagination and sincerity. More formal plays have been presented on the initiative of special groups, and several departments have cooperated in reviving Gilbert and Sullivan operas in several different years. On such occasions the carpenters, electricians, and stage crews have served so well as to set faithfulness and efficiency almost among the arts.

We regret that limits of space prevent our fuller comment on these several fields—some of them hardly approved by Friends two or three generations ago—or on the English courses. As facilities are extended and utilized, we may come to find the cultivation and sharing of these arts one of the strongest forces among us in raising the quality of our Quaker democracy.

# THE HORACE MANN SCHOOL FOR GIRLS

NEW YORK CITY

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In 1933 the Horace Mann School joined with thirty public and private schools in the work of the Commission on the Relation of School and College. This venture into the realm of experimentation was not a new one for the Horace Mann School or its staff. For over fifty years the school has performed this great educational function, and has sent hundreds of students to the outstanding colleges of this country.

The Horace Mann School is a private day school. It consists of two kindergartens, for four- and five-year-old children; a co-educational elementary school of six grades; and a girls' secondary school of six years. The total enrollment in 1938-1939 was 651, with 231 girls enrolled in the high school.

The school is supported by tuition fees which range from \$300 to \$500, and by Teachers College.

The Horace Mann School because of its generous scholarship policy is definitely cosmopolitan in character. The parental occupations of the student body may be classified under business and professional activities. The most frequently represented professions are education, law, medicine, and engineering. In business the occupations of manufacturer, broker, and business executive appear most often.

In recent years the enrollment of the Horace Mann School has fluctuated considerably. The main reasons for this may be found in the general trends of the times. During the past few years there has been a continuously growing movement of population from the metropolitan area to less thickly populated suburban districts, resulting in a changed population in the neighborhood of the school. The uncertainty of business conditions brought about by the depression has altered the economic status of many families, who have found it impossible to continue sending their children to a private school.

Notwithstanding the increasing number of problems with



which the school has been faced during the past few years, it considers many applicants for entrance. Parents choose the school because during its fifty years of development it has enjoyed an enviable reputation for sound education while evolving and utilizing new educational theories. It has endeavored throughout to maintain a balanced program, the principal aim of which is the development of a well-rounded individual, able to take his place in the society of which he is a part.

Another reason, important to parents and children in their choice of the school, is the fact that a very large per cent of the school's students enter college, and many of these establish high records of achievement during their college years. Many parents are also interested in having their children attend a school connected with a great university, where both children and teachers enjoy the attendant cultural and educational advantages.

The fact that the Horace Mann School is a day school often influences the decision of those parents who desire to give their children the benefit of a home environment during their high school years.

The opportunities for individual development in music, dancing, dramatics, and art which are offered by the Horace Mann School frequently play an important part in the selection of the school by both parents and children.

### Selection of Students

The Horace Mann School reserves the right, as does every private school, of selecting its students. Inherent in this is the responsibility of bringing together children who will profit individually from their experiences in the school, and who will, in turn, enrich the life of the school as a whole. This amalgamation of benefits derived and contributions made further enables the school to serve the advancement of better education.

No applicant for admission is rejected upon any basis other than the best judgment of both the principal and the Admissions Committee as to whether the school can serve his needs adequately, or as adequately as would some other type of school.

Because the entire enrollment of the Horace Mann High School falls within the upper half of the distribution curve of

mental ability for high school pupils (as measured by standard mental tests), and the abler half of the Horace Mann group falls within the best 10 per cent of the normal distribution, it is exceedingly important that consideration be given to the needs of the individual as he plans to enter the Horace Mann School.

In the high school the mental age of each grade group is, in terms of the median test scores, from two to three years higher than the norms for high school grades, with a median intelligence quotient of 124 to 130.<sup>1</sup>

The Horace Mann School is concerned with accomplishing for its pupils more than adequate preparation for college or for a vocation; it is attempting to provide experiences which develop genuine and varied social, intellectual, and aesthetic interests, and skills adequate for the continued expression of such interests. It also provides for the acquisition of recreational interests and skills that assure healthful living and satisfying use of leisure hours.

### *Selection of Staff*

The Horace Mann School has always drawn to its staff outstanding teachers from many parts of the country. They bring to the school many different points of view and varied experiences. The principal is constantly on the alert for teachers competent to maintain the school's standards.

All teachers who accept positions in the Horace Mann School have a twofold responsibility, the first of which is to teach children to the best of their ability. Their second responsibility is to teach before classes from Teachers College and representatives from other schools here and abroad, thus illustrating the practicability of modern educational procedures.

The influence of the Horace Mann School teachers in education is not confined to the classroom. Each year finds many of them furthering the advancement of their particular fields of interest by:

1. Lecturing before educational bodies, and parent-teacher and laymen groups; and by radio to the interested public.

<sup>1</sup> Cecile White Flemming, *Pupil Adjustment in the Modern School*, Bureau of Publications, Teachers College, Columbia University, New York City, 1931, p. 17.

2. Participating in educational surveys, and serving on educational committees—both local and national.
3. Encouraging and furthering the use of the community in education through field trips and study of moving pictures, radio, etc.
4. Experimenting, studying further, and doing research in specialized fields of education.
5. Conducting Teachers College and extramural classes.
6. Giving educational counsel to various institutions and enterprises.
7. Writing educational articles for professional magazines, textbooks, books on education, and other educational material.

Through such a well-balanced integration of work both in and out of the classroom these teachers make valuable contributions to education.

### *Administration*

The Horace Mann School is an integral part of Teachers College, and is classified by the college in the Division of Educational Demonstration and Public Service. This division is headed at the present time by the Provost of Teachers College, Dr. Milton C. Del Manzo, who is responsible to the dean and the trustees of Teachers College.

The school is directly in charge of a principal, who is a member of the professorial staff of Teachers College. In his work in the Horace Mann School he is assisted by two assistant principals, each in immediate charge of the elementary school and the high school, respectively. The principal also has as members of his administrative staff a Director of Curriculum, a Director of Individual Development and Guidance, a librarian, a physician, a nurse, and an executive secretary.

This group meets with the principal when he desires its counsel upon matters pertaining to the general policy of the school.

The teachers, through participation in staff meetings and through membership in the various school committees, have a most active part in determining many of the school's policies.

Since 1935 the school has had a Working and Planning Com-

mittee. This committee is composed entirely of classroom teachers, and was appointed by the principal for the purpose of studying questions of concern to the school and of advising him as to possible courses of action.

### *The Horace Mann Plant*

Since 1901 the Horace Mann School has occupied the building at Broadway and 120th Street, New York City. Although the present structure does not possess many of the physical facilities considered desirable for housing a modern school, the plant is nevertheless substantial, cheerful, and distinctive. During recent years the majority of the rooms have been redecorated in the style of modern classrooms. Most of the rooms are equipped with movable furniture, electric outlets, and dark shades. Many of the rooms used for specialized activities, such as physical education, art, music, although inadequate according to some standards, are in many ways commensurate with the needs of a modern school.

The school is fortunate in having several large rooms which serve as laboratories for the classes in the coordinated program for the junior and senior high school. They are equipped with study tables, filing cases, etc.

The library of the school is a charming room, spacious in appearance and inviting to the eye. It is equipped with modern tables, chairs, magazine racks, display cases, open shelves, and filing cabinets. Approximately 5,000 books are shelved along with many magazines and reference books. In addition, pictures, slides, motion picture films, stereographs, maps, typewriters, etc., are located in the library.

There is a real need for display rooms, to be utilized with safety for art exhibits, rare books, and the like. Additional storage space is also needed.

The auditorium and the lunchroom, which are used by the entire school, have been made soundproof.

The school is also well equipped with modern physical aids to education, such as maps, globes, pictures, stereopticon machines and slides, stereographs, pianos, victrolas and records, moving picture machines, radio playbacks and receiving sets, voice recording machine, science equipment, typewriters, etc.

The building, though an old one as gauged by the standards of school building experts, does permit innumerable opportunities for carrying on a modern educational program.<sup>2</sup> Significant as a good physical plant may be, it is clearly of secondary importance when compared with the insight, philosophy, resourcefulness, and human kindliness of a school staff.

### SOCIAL PHILOSOPHY

Inevitably every school has a philosophy. It has a way of life. This philosophy may be rich or barren in its implications, unified or contradictory in its application.

The richness or sterility of a school's philosophy depends in the last analysis upon the total experiences of the full membership of a school. Each member brings to a school his own pattern of values, which has grown from and has been influenced by his total inheritance, his geographic and cultural background, his responses to his opportunities and obligations. This dynamic center of relationships, which operates continuously as the individual confronts the multitudinous problems and aspects of life, is his philosophy.

If a school is interested in clarifying its philosophy, it needs to examine the existing points of view current in the teaching staff. Such a procedure may lead to the strengthening and broadening of individual philosophies so that they become more effective in action. There is the further possibility of so synthesizing the divergent philosophical points of view of a school staff that an entire school may be unified and invigorated.

Any school which proposes to formulate a statement of social philosophy is very likely to find that many members of its staff will think such an undertaking almost insurmountable. At the outset there may be those who feel that in the light of the present uncertainties in the world no statement could be made, others will predict disagreements so sharp that nothing constructive would eventuate, and still others will prophesy that any such

<sup>2</sup> Guy E. Snavely and Wyatt W. Hale, *The Horace Mann and Lincoln Schools, and Their Relation to Teachers College* (mimeographed report).

statement would be so filled with compromises that it would have little value.

In spite of difficulties, the staff of the Horace Mann School, in 1937, took upon itself the task of re-examining and stating the social philosophy of the school.

### *Beginning the Study*

The work first centered in the Working and Planning Committee of the school. Such questions as follow were raised:

1. Does a school need to express a social philosophy? What is meant by it?
  2. Can a philosophy be formulated which would be acceptable to everyone concerned?
  3. How desirable is it that this group attempt to formulate a social philosophy?
  4. Should a school train merely for open-mindedness, and allow the child to draw his own conclusions?
  5. Should a school steer a pupil in a predetermined direction?
- In an effort to throw light upon the need and meaning of a social philosophy, the committee did extensive reading from many current books dealing with the subject.

### *Examining the Coordinated Program*

Since the school was actively engaged in developing a co-ordinated program, the group decided to use the social philosophy embodied therein as a point of departure. This program was built consciously upon the idea that man in different times and in different places has helped to shape the course of civilization.

The first report dealt with the course on American culture and civilization. From historic documents and from representative thinking as expressed in literature there was built up the conception of the importance of the individual, his right to equality of opportunity, and his chance to shape his own destiny. It was pointed out that in a democracy the state was created to serve the individual.

Another report presented an analysis of the courses dealing with "Modern Cultures Other than Our Own" and "America's Issues and Problems." Among the points stressed were:

1. Evils can be corrected and problems solved by the conscious application of intelligence.

2. Inheritance of the concepts of liberty and the practices of self-government is of great value.

3. The mechanization and industrialization of modern life have rendered obsolete many individualistic opportunities, but have multiplied man's potential ability to provide a good life. The proper control and utilization of this new power for the general welfare is an imperative problem of the modern world.

### *Examining the Extracurricular Activities*

The committee also studied the social objectives implicit in the work done in some of the extracurricular activities, many of which are included in the work of the General Association.<sup>3</sup> Some of the objectives of this Association are stated below:

1. People should be impersonal in their choice of leaders.

2. People should make decisions in general upon the same impersonal basis.

3. People should be encouraged to take independent action, as long as it does not come into conflict with the welfare of the group as a whole.

4. People should be encouraged to develop worth-while interests, with recreational activities emphasized.

5. People should be trained in organization techniques, planning activities, executive work, parliamentary discussion, technique of organization for effective group discussion and action.

### *Writing the Report*

The members of the Working and Planning Committee now began to synthesize the material already developed, for further study by them and the staff. After considerable deliberation a report was presented to all staff members, who were asked to study it. This resulted in constructive criticism and many sug-

<sup>3</sup> The General Association is an organization including in its membership every member of the high school group in grades VII to XII. It coordinates the organizations and activities of the six grade groups. (See Helen M. Atkinson and Cecile White Flemming, *Education for Constructive Social Influence Through Student Organizations*, Bureau of Publications, Teachers College, Columbia University, New York City, 1933.)

gestions for the report's improvement. After continued work and reflection a revised set of principles was submitted, on March 17, 1939, for use in developing a social philosophy within the school.

Following is the report, as finally accepted by the staff. This report accepts democracy as a way of life and deals with the individual in his dual role of a single person and a member of the group.

*Report of the Working and Planning Committee in Respect to the Social Philosophy of the Horace Mann High School for Girls*

- I. We believe that the general acceptance of democracy as a way of life is the basis upon which our educational philosophy and program should be predicated.
- II. We tentatively define democracy as follows:

Democracy is a system of society, the purpose of which is to make possible the full free development of each individual in accordance with his best capacities, so that he may become an effective and responsible member of a social group while realizing basic personal satisfactions.
- III. We recognize that the "full free development of each individual" carries with it the following implications:
  - A. In respect to the realization of personal satisfactions:
    1. Physical, emotional, and intellectual self-mastery in succeeding situations.
    2. The application of the method of logical analysis to the solution of problems.
    3. The sense of belonging to a group in which the individual is recognized as a significant contributor.
    4. The satisfaction which comes from functioning effectively in society.
    5. A wide range of interests, some of which eventuate in significant action.
    6. Experiencing vicariously the intellectual, spiritual, and aesthetic efforts of others.
  - B. In respect to serving as an effective and responsible member of the group:
    1. The appreciation of, and sympathetic insight into, the problems, aspirations, shortcomings, desires, needs, and emotions of others.



2. The objective evaluation of social situations in terms of essential human values.
  3. The critical examination of convictions and the formulation of tentative conclusions.
  4. Single or cooperative action on the basis of the above conclusions, to the extent of ability without undue consideration for personal ends.
  5. The recognition by the individual of this obligation to serve society in accordance with his abilities and opportunities.
- IV. We recognize that the following general conditions are inherent in a working out of the above definitions of democracy:
- A. That the individual should be free to listen to all points of view on any question; to hold whatever religious, political, economic, or social beliefs he may choose; and to express his opinion on them in speech or in writing publicly and privately.
  - B. That the individual should be free to act alone or in a group with a view to the realization of his aims, subject to the limitations necessary to the preservation of the rights of others.
  - C. That the individual should have a chance to earn a living which will enable him to maintain an adequate standard of health and decency.
  - D. That there should be available to the individual the best provision for the achievement and preservation of mental and physical health.
  - E. That the individual should be given full opportunity for the training and development of his capacities without regard to class, creed, or race.
  - F. That the individual should have an opportunity for education in the rich and varied use of his leisure time, with an increasing provision of facilities by society.
  - G. That society has a duty to make the most socially effectual and permanent use of the natural resources and technological discoveries which the country possesses or develops.
  - H. That desirable changes in human relationships should be brought about through peaceful, cooperative action.

As indicated in the foregoing discussion, the philosophy which was formulated grew out of the ebb and flow of the everyday

life of the school; and because of this it will eventuate again in school practice.

Since 1938 the school, aided by the tests of the Evaluation Staff, has been making progress in determining the degree to which social attitudes and concern are becoming an integral part of an individual's way of life.

### EDUCATIONAL PHILOSOPHY

The Horace Mann School, throughout its existence, has been actively engaged in studying, experimenting, and determining the elements which constitute a best possible education at a given time for a given group of children. Over a span of half a century these accepted elements have undergone considerable change. From time to time new signposts have appeared on the educational horizon and, consequently, on the life line of the school. Through the various stages of the development of these new educational theories, the Horace Mann School has been constantly extending its frontiers of practice. It has never faltered in its conception of the school as functioning in terms of children's needs.

The school encourages children to think for themselves and to base their thinking upon reliable data. It believes that children should be trained to think clearly in appraising what is most important in their everyday lives and in the society of which they are a part. Incorporated in this belief is the fundamental conviction of the importance of providing opportunity for children to engage in activities which allow them to live together harmoniously.

It believes that attitudes and feelings are the mainsprings of human action. One of the school's most important responsibilities is to foster right attitudes. Tolerance, kindness, honesty, fair play, and countless other human attributes which make for fine and full living are, therefore, constantly emphasized and consistently practiced.

Briefly this is the basis for the educational philosophy of the Horace Mann School. Its ultimate purpose, then, is to develop individuals:

1. Whose bodies are strong and healthy.
2. Who believe in education as an enduring quest for meanings.
3. Who develop mental and spiritual powers.
4. Who think with trained minds.
5. Whose conception of life includes a sensitive appreciation of the peoples of the world and their contribution to civilization.
6. Who acquire the self-direction necessary for resourceful living.<sup>4</sup>

The school strives continuously to maintain its position as a contributor to democracy, and provides numerous opportunities for democratic practices within its own organization. Thus the interplay of experiences in the classroom and life outside stimulates the child's curiosity and contributes to his growth, both socially and intellectually.

### *The Curriculum*

Today's fast-moving world presents many challenges which demand vigilance and prudence on the part of contemporary educational agencies. As one of these agencies, the school is confronted with the problem of making the constant and rapid changes of the world intelligible to its children.

1. Can the school lead society, or must it be content to follow?
2. Is the school willing to appraise the structure of society within which it operates?
3. Dare the school build a new social order?<sup>5</sup>

Without trying specifically to answer challenges of the foregoing types, many educational leaders have become more and more aware of the fact that the complicated pattern of today's society presents a fertile source from which a plan of education may be evolved.

With the growing recognition of the necessity for making

<sup>4</sup> Rollo G. Reynolds, and Mary Harden, "The Fundamental Philosophy and Purposes of the Horace Mann School," *Teachers College Record*, Vol. XXXVI, May, 1935, pp. 649-658.

<sup>5</sup> George S. Counts, *Dare the School Build a New Social Order?* John Day Company, New York, 1932.

changes in educational programs, impetus has been given to the importance of including curriculum development and reconstruction in the regular, day-by-day work of the school.

Undoubtedly some of the most potent changes in educational programs have had their origin in social need and the better understanding of children. A little over a decade ago the Horace Mann School, sensitive to the trends then occurring in society and feeling their impact upon education, began to study how best it could answer the demands of these trends within its program.

When change is contemplated in any educational program, the responsibility of what to substitute for that which is to be discarded or renovated becomes an all-important problem. It is very easy to talk about what is wrong with an educational program, but it is extremely difficult to prepare a workable and acceptable remedy.

After due consideration the administrators and staff of the school decided to make the first change in only one grade at a time, and chose the seventh grade, or first year of the high school, as the starting point. It seemed wise to let the program develop consecutively year by year, instead of trying to induct a new program into the entire three-year or six-year unit.

### THE JUNIOR HIGH SCHOOL COORDINATED PROGRAM

In this new undertaking, planned by teachers who were experienced in dealing with children, interested in social progress, and expert in their respective fields, it seemed advisable to broaden the scope of the program in general by providing for:

1. Continuity of experience from the elementary school to the junior high school through an extension of the study of broad units of work.
2. Establishment of relationships among the various subjects which would aid in contributing to a more complete picture of society.
3. Organization of the school day into a related whole.
4. Determination of areas of study applicable to the interests and needs of the adolescent girl.
5. Selection of a program to serve as a basis for the senior high school, which was, at the time of the induction of the

program, meeting the requirements of entrance examinations to college.<sup>6</sup>

The framework finally decided upon to initiate this new type of program into the junior high school was embodied in the theme "The Story of Man Through the Ages." This theme was not regarded as the story of man's culture, per se, but rather as material for accomplishing the following:

1. Showing how the steps in the progress or retardation in the life of man have affected the life and problems contemporary with the child.
2. Furthering the child's conception of himself as an individual engaged in a complex social activity.
3. Developing the child's ability to make valid generalizations and deductions, and to recognize significant relationships through an understanding of the past.
4. Developing social, spiritual, and political ideals which result in action commensurate with the child's ability and opportunity.
5. Emphasizing the elements of permanence in a society, as well as the elements of change.

The content framework from which experiences are drawn, as outlined in 1939, is:

*First Year (seventh grade).* Prehistoric man; river valley civilizations of the Nile, Tigris, and Euphrates; cultural contributions of Greece and Rome.

*Second Year (eighth grade).* Life in the Middle Ages; the Renaissance.

*Third Year (ninth grade).* Modern age (Reformation; the commercial, agricultural, and industrial revolution) through the present.

With the introduction of the new program the school day was divided into large time-blocks of from two to three class hours each. One time-block, or approximately one-third of the day, is devoted to the coordinated program of each grade, and is in charge of a coordinating teacher. Working in close cooperation with the large-theme teachers are teachers of fine arts, science, industrial and household arts, music, mathematics, and the lan-

<sup>6</sup> The junior high school program was already functioning before the establishment of the Commission on the Relation of School and College.

guages. In connection with the theme the function of the special teachers is to make clear what their specific areas have contributed to the progress of man.<sup>7</sup>

The coordinating teacher in each grade of the junior high school is the home room teacher. She and the children together discuss the problems they wish to study. Then she has conferences with participating teachers to help to delimit the phases of the work to be developed and to determine a tentative time for participation. The participating teachers find that these conferences aid them in planning for the coordinated program and help them to synchronize their other work.

### *First Year*

The general approach to this study of "The Story of Man Through the Ages" is made by introducing the student to the epochs in which the significant events of the ancient world occurred. The immediate approach is usually made through specific interests revealed by the students.

A study of these interests shows that many of the areas of human experiences in modern life are represented. Some of the areas studied are: safeguarding health; earning a living; engaging in recreational activities; dealing with human relationships as expressed through person-to-person, family, and community contacts; expressing religious impulses; satisfying desire for beauty. It soon becomes apparent that many problems confronting modern society have been recurrent and persistent throughout man's life.

In helping the child answer questions which occur to her during her study, the library of the school is invaluable.<sup>8</sup> Under the guidance of the librarian, who takes an active part in class discussions, the child is trained in the use of books as tools, in the use of the card catalogue, and in other library techniques commensurate with her ability.<sup>9</sup>

<sup>7</sup> Rollo G. Reynolds, "Changing a High School," *New York Times*, education section, Sunday edition, April 21, 1935.

<sup>8</sup> Grace L. Aldrich and Cecile White Flemming, "A Library in Action in a Modern School," *Teachers College Record*, Vol. XXXVIII, February, 1937, pp. 389-404.

<sup>9</sup> No separate reference to the library is made in this report, because in the

The subject of English in the coordinated program offers many opportunities for students to become acquainted with the experiences and feelings of man in relation to his social setting. The heritage of ideas thus obtained stimulates work in reading, writing, and dramatization which not only vivifies man's experiences in times remote but affords opportunities to compare these experiences with those of a similar type in modern life. For example, the students write about everyday life in Egypt. Chants are written in the Egyptian style. Music and the dance, social studies and English, are combined in this activity. A study is made of the chant as it has developed through the years and as it is now used in the Church and in Negro spirituals.

The student materials resulting from continued practice in creative writing become the basis for understanding the value of correct usage and form. When it became apparent that literary material related to the general theme—such as literature about primitive man, Egyptian chants and myths, stories from the Bible, Greek myths and fables, and selections from the *Iliad* and *Odyssey*—was not sufficient to satisfy the students' interests, other opportunities for reading and writing were introduced. Constructive critical ability was encouraged through discussions of out-of-school activities. A "free activity" notebook is kept by each student in the first year.<sup>10</sup>

The science teacher helps the students answer the question of why they are different from early man. They explore a fossil record and make comparisons between primitive and complex animals. Through a study of the ideas of Darwin, later investigators, and social studies material they are aided in answering this question.

Likewise, in studying man's development they become interested in the part which his environment has played; the rela-

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Horace Mann School the library functions so closely with the other departments that a separate treatment is impossible.

<sup>10</sup> A "free activity" notebook has been kept by every high school student for a period of three years or more. In this she records her personal comments and reviews of books, movies, concerts, plays, and any other of her activities which she wishes to record. This gives her further opportunity to exercise critical ability and judgment in choosing activities to occupy her leisure time.

tionships between man, soil, and water; the way the ancient Egyptians used the Nile, and the way Americans use the Mississippi and Hudson; the influence of the geographic factor in Greece; and the way our own environment affects our way of life.

During the coordinating work in science, emphasis is placed upon the development of the machine age by studying fundamental principles of the machine, and the use of these simple principles in modern machinery.

The arts as a natural expression of man's feelings are an enriching factor of the coordinated program. In the field of fine arts there are many opportunities to study this expression. As the program develops, the manifestations of man's interest and achievement in the arts and evidence of that achievement in modern life are studied. Students express themselves in a variety of media. They show the problems of the people they are studying and contrast these problems with those of today. This is true throughout the entire coordinated program.

The household arts emphasize family life and the development of the home, tracing it from its primitive beginning. Embodied in this study are the seeds of many of the problems of family life of interest to girls of this age. The problem of dress and adornment and the study of textiles help the students to understand the development of modern dress. Study in the laboratory is made of primitive foods still found in American diets. At this particular age the child asks many questions concerning problems of health. These often lead to the consideration, by a small group, of the development of medicine.

In industrial arts the interests of the students often center around man's use of metals for tools, weapons, and decorative purposes. This interest takes active form in the creation of bowls, rings, and bracelets which reflect the motifs of Egyptian, Greek, and Roman art. The work of the class, however, is not confined to the use of metals, but includes activities in weaving, clay modeling, textile designing, and early writing materials.

The study of music in the first year attempts to give the student three things: first, an appreciation of what music meant in the social life of the people contemporary with the period stud-



ied; second, the ability to feel the values of the music of another culture; and, third, an understanding of the inheritance in our own musical culture of earlier inspirations. Explorations of the student's simplest and most natural ways of musical response give insight into the unified body of music: singing and word expression of a primitive before his gods; the part which music plays in primitive rites; the use of drums, Greek festivals, and the use of the lyre and flute. Greek dramas, and the choruses which chanted or sang a running commentary, receive special emphasis. Music also serves as one of the unifying threads in bringing together the work of the year in a culminating activity.

One aspect of the work in physical education deals with dancing. Students are given opportunity for creative dancing, based on a study of the background of various peoples. In the culminating activity, mentioned above, dancing is essential to the continuity of the dramatic episodes.

At the point where the advancement of communication is emphasized, a study is made of the important elements entering into the development of language. When the class studies Rome, some of the simple elements of Latin found in the English language are studied.

The possibilities for including mathematics in the coordinated program are found in the study of the history of the mathematics of the Egyptians, the Arabs, and the Greeks.

The culminating group activity usually takes place at the end of the year. The students use creatively ideas which they have assimilated, and give emphasis to relationships already accepted and newly recognized.

A discussion of the coordinated program in the first year would be incomplete without an account of the informal physical setup of the classroom. This setup has also been of aid to the teachers in their desire to be a part of the group, rather than apart from the group.

The room is supplied with work tables, which children use as permanent places for materials, and with enough extra chairs to enable the arrangement of circles for either small or large discussion groups. The movable furniture offers many opportunities for rearrangement of the room for activities.

The classroom is also used as a home room, in which each

student has a table for her own belongings. It is here that class meetings and conferences between teacher and students are held. On each desk are book ends and personal possessions which contribute to the informal atmosphere. The color scheme of the room, planned by the class, is carried out through the use of colored blotters and bulletin board decorations. The care of the room and the maintenance of the bulletin board are delegated to room committees selected by the students.

*Additional Subjects.* The work of the coordinated program occupies about one-third of the school day. It is but a part of the total experience of the students. For example, art, music, industrial and household arts, science, English, and physical education are an integral part of the coordinated program, but opportunity is also given to develop objectives which are unique to each of these fields. This is done by providing regular class, studio, and laboratory periods for these subjects. These organized subject matter fields have made a unique contribution to the development of the coordinated programs.

In closing the discussion of the program in the first year, emphasis should be placed upon the school's recognition of the importance of giving children opportunities for effective functioning in a group, for the eventuation of interests in action, and for the development of self-mastery. In the first year, for instance, two such opportunities are given at the beginning of the school year. One is the all-school party sponsored by the General Association, and the other is the class party. At the all-school party the first-year class, in cooperating with the other classes of the General Association, learns, through the presentation of a skit, to discover talent and to develop skills in organization. The class party offers similar opportunities, but here the students are wholly responsible for the success of the party.

The election of class officers as a part of the General Association program and the selection of students for other responsible positions offer a chance for training students in leadership, as well as to think and act as individuals.

## Second Year

The coordinated program during the second year continues many of the types of experiences begun in the first year.

Briefly, this program deals with a study of the cooperative elements of life in the Middle Ages, the unifying influence of the Church on society, the importance of art and architecture, the increase in trade, and the growth of towns. The fact that the Church stressed the equality of man is emphasized, and the centralization of thought and authority in one Church is studied in relation to the diverse religious opinions and institutions of today. The emergence of individuality, as it expressed itself in the later Middle Ages and during the early Renaissance, is also studied. A more complete description of the second-year program will be found in the supplementary material listed at the end of this report. This material emphasizes a study of religion and religious tolerance as it occurred in the class of 1939-1940.

### *Third Year*

The program focuses upon man as he emerges in the modern age into the broadening scope of civilization as it awakened to the possibilities of scientific invention, geographical expansion, economic production, democratic procedures, individual growth, and general cultural development.<sup>11</sup> It is the culmination of junior high school experiences and the forerunner of experiences in the senior high school.

The work of the year usually opens with the study of a modern event which is claiming the attention of the world. Inquiry into contributing factors (geographical, political, social, historical, and economic), the immediate conditions of the country and people involved, and the effects which the event is likely to have upon the country and its people helps the students appreciate some of the implications of the event. This enables the students to concentrate on the culture of the country as revealed in personalities, folklore, music, architecture, customs, and dress.

This type of study also gives the student a chance to become more familiar with the use of current source materials, such as magazine and newspaper articles, radio programs, and newsreels, and to develop skill in note taking, in outlining, and in presenting oral and written reports.

<sup>11</sup> Orrielle Murphy, and Alice Margaret Torrey, "Introducing High School

The intensified study of a current event has a most valuable result: it proves to the student that an intelligent understanding of the event is different from mere chatter and opinion expressing. For the teacher, such an intensified study affords an opportunity to evaluate the strengths and weaknesses of individual students, and of the class as a whole, as revealed in their ability to use materials and study techniques. In such a study, inventory can be taken by student and teacher.

In 1939-1940 the study of religion began with the religious upheavals of the fifteenth, sixteenth, and seventeenth centuries and ended with the role of religion in life today. Emphasis was placed upon the variety of existing faiths and their fundamental likenesses. The study of the separation of Church and State, and the contrasts between methods of settling religious questions in autocratic and democratic societies, gave a better understanding of the work in the succeeding year.

The students visited different types of religious institutions, such as Unitarian, Christian Science, Episcopalian, and Russian and Roman Catholic churches, where they heard explanations of the various faiths. Before making these visits each student selected for special study a topic in which she was particularly interested.

These interests and the knowledge gained from the trips were consolidated into a written paper. Before she wrote her paper the student made an outline, which was appraised, in conference, by teacher and student. The student then presented a rough draft for further comment before submitting her paper in its final form.

At the close of this unit each student gave her personal reaction to religion; that is, she expressed her personal religious philosophy. The following, which is part of a written test given during classtime, is an example of this expression:

My idea of a religious utopia in the world would be a place that was quiet and peaceful. It should be a place that would direct your thoughts toward God and all of the good things in the world; a place

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Students to a Study of Man Through the Ages," *Teachers College Record*, Vol. XXXVIII, January, 1937, pp. 324-336.

that would calm you and rest you, that would make you at peace with everybody and everything. People would be allowed to come and go as they wished, thinking their own thoughts and believing what they wanted to.

People who lived here would have to be rather different. They would be tolerant. They would not mind if a person didn't believe the way they did. They would not always be trying to convert people to their way of thinking. They would talk over their ways of thinking open-mindedly.

There would be churches where all people, no matter what they believed, could go and worship. There would be a kind of unity in which perhaps the religious beliefs differed but all of the people were in a sense one, working together for happiness.

For the class of 1940-1941 it is likely that the interests in religion will be somewhat modified, because the students have engaged in a very similar type of work in the second year. This will be of value as indicating whether the students prefer to continue the study of religion or to initiate a new topic.

The remainder of the work centers about the events of the period of exploration and discovery, and of the commercial and industrial revolutions. The geographical unfolding of the earth becomes of vital interest. The students realize that areas in polar lands, ocean depths, and the stratosphere are still to be explored. Consideration is given to the lands and peoples with which the explorers came in contact. Some of the related problems discussed are: the right of a large country to conquer and force its own culture upon a small country; determination of ownership of newly discovered territory by right of discovery, by settlement, by ability to maintain ownership; the responsibility of a conquering country toward the culture it has found; possible justifiable motives for conquest.

As an introduction to the Industrial Revolution the class studies the shift in trade routes from the Mediterranean Sea to the Atlantic Ocean, the development of instruments of credit, the increase in demand for goods, scientific inventions, and the establishment of new markets for trade. One of the main objectives of such a unit as this, on a junior high school maturity

level, is to help the students to appreciate the realities of an industrial society. Some of the points considered are:

1. What is the organization of a factory? What are the responsibilities of the owner, the management, the worker?
2. What is a labor union?
3. What do labor unions want, and how do they go about achieving their aims?
4. What do employers want, and how do they go about achieving their ends?
5. What does life in a factory mean to the employer, the employee, the students?
6. What constitutes proper working conditions in a given factory?

Trips are taken to the Museum of Science and Industry; to a woolen mill, a bakery, a shoe plant, a candy factory, a laundry, and a food market, where consideration is given to the sources of the mechanical power, to factory management, to the processes of manufacture, and to the physical conditions under which the work is done. Each student gathers information on questions assigned as preliminary to a group report, and also makes some original contribution of her own.

Student participation in carrying out the program includes activities such as class discussions, keeping of notebooks, dramatizing events, making reports, and taking excursions to museums, churches, factories, and art galleries. These excursions are carefully prepared and as carefully conducted. Most of the material for the study of the change from hand to machine labor comes from these trips taken to factories. With this background the students are encouraged to express their ideas in ways which they themselves select; for example, impressions of factory life presented through stories, poems, plays, essays; music inspired by sounds in a factory; clay statues depicting laborers at work; and dances symbolic of the machine age.

Every effort is made to develop an enriched and balanced content which will enable students to see the changes that have occurred in the various fields of music, art, science, language, etc.

Special emphasis is given to science in the Renaissance. The

ideas of Copernicus, Galileo, and Kepler are contrasted with those of Aristotle and Ptolemy. When the students study the period of exploration, attention focuses on instruments of navigation. The work on the Industrial Revolution is aided by the study of the sources of power and their mechanical application.

The coordination of art with the program is established through the close relation of art to the life and character of the people. Included in the study are Renaissance art in Italy, German art at the time of the religious upheaval, the art of the Low Countries, and the art of imperial Spain. In this connection the students are taken to art museums.

English is closely coordinated with the program. The oral work divides itself into informal discussion and the more formal presentation of reports. Students learn to express themselves concisely, and develop ability to keep a discussion moving toward a given point. They learn to organize material for an audience, and to speak interestingly and convincingly in a pleasing tone of voice.

During the development of the program the teacher has observed that students of this maturity level do not, as a group, enjoy reading and discussing a novel or other pieces of literature in detail. Therefore the coordinated reading consists of books selected from lists made up by teachers and pupils. Many students read *The Cloister and the Hearth* for a picture of life in the Renaissance. Near the end of the year the class is divided into groups and each group reads a comedy by Shakespeare, the purpose being group enjoyment and understanding. Shakespeare is chosen as an example of an author whose works reflect the spirit of his times. Occasional poems and excerpts from the writings of authors contemporary with the period under discussion are introduced.

In household arts the students study the contributions made by foreign peoples to American cuisine, and often plan, prepare, and serve foreign meals to the class and to their teachers. They visit foreign restaurants.

The industrial arts course in this year is elective and the work is not so closely coordinated. The students are interested in making articles for personal adornment and family use. The fol-

lowing subjects, however, have been successfully coordinated: study of weaving, designing and making a piece of cloth, producing pottery, of use of designs by native American culture, constructing models.

The coordinated program is less rich than in other years in meaningful relationships with music. Students are interested in the strong pull of social music and in the current musical life. The most fruitful source of correlation is in connection with their study of religion.

### THE SENIOR HIGH SCHOOL CURRICULUM

Curriculum development and reconstruction in the upper levels of a secondary school present many difficult and interesting problems to those who desire to bring about change in this area. But, whether or not change takes place within a school curriculum, the conditions of society are never static.

Members of the staff of the Horace Mann School, when considering new values and new emphases in curriculum construction, felt that some of the liberalizing and enriching aspects of the coordinated program should be continued in the last three years. This could be done, in part, through the selection of a general theme which would present many aspects of modern life, through the establishment of a relationship among the various subjects, and through extension of the study of broad units of work.

Although the Horace Mann High School serves as a demonstration school for Teachers College and has, for many years, been actively engaged in meeting educational challenges, about 95 per cent of its student body enters college.

### COORDINATED PROGRAM IN THE SENIOR HIGH SCHOOL<sup>12</sup>

In extending the program, the major theme of the junior high school, "The Story of Man Through the Ages," was found to be

<sup>12</sup> It was not until the Commission on the Relation of School and College was established that the school was released from specific college entrance requirements, and the extension of the coordinated program to the fourth year, in 1933-1934, became possible.



an excellent foundation upon which to build an understanding of modern civilization and cultures. In this plan the fourth year is concerned with American civilization and culture; emphasis is placed upon the development of the ideals of American democracy as a part of the students' heritage, and the application of these ideals to modern living.<sup>13</sup>

The fifth-year students are introduced to modern civilizations other than their own, such as those of Great Britain, France, Italy, Russia, and China. Herein the growth of democracy, nationalism, imperialism, and fascism becomes the controlling theme.

In the sixth year, modern problems and issues in America are emphasized. It is expected that through the experiences of the preceding years the students will have acquired a deep appreciation of the significance of persistent and recurring problems and struggles in the human story.

#### *Fourth Year*

The primary purpose of the fourth-year program is to give students an opportunity to understand American culture as a continuous force. Such a study of American life cannot be confined to a memorization of facts or a narrow interpretation of the democratic heritage, but is necessarily inclusive in nature and deals with the culture as a whole.

Though the content of the course has shifted from year to year, the keynote has been the characteristic ideas and ideals which have motivated and shaped American thinking. An effort is made to show the realistic value of these ideals for each individual member of society.

The selection of the content material has been influenced by the interests and needs of the students involved, by significant events in the outside world and within the school, and by the planning of those concerned. Throughout the development of this course the thread of literature has been interwoven with the study of American life.

<sup>13</sup> Mary Harden, Louise Taggart, and Irene Lemon, "Introducing High School Students to a Study of American Civilization and Culture," *Teachers College Record*, Vol. XXXVI, January, 1935, pp. 279-291.

In focusing the purposes of the program, a variety of approaches have been employed. One has been the consideration of a significant contemporary problem, or some aspect of the current scene. At the time of the presidential election in 1936 many students were alive with ideas, questions, and emotions about the respective worth of candidates, political parties, and platforms. Simultaneously with the study of the political phase of the issues under consideration, the students read what authors were writing, and had written, about certain basic social problems of the country.

A study of housing was an outgrowth of a visit by a committee of the class to a housing project in New York City. A particularly warm impromptu debate revealed to the participants their lack of adequate information and led to a concentrated study of housing, centering around the following concepts:

1. Universality of the need for housing.
2. Minimum standards necessary to satisfy housing needs.
3. Resultant effects of bad housing.
4. Placing of responsibility for satisfying these needs.
5. Planning for the future.

In developing these concepts, students were very much aware of the fact that democratic traditions are still in the making today.

In another approach the class concentrated on periods of special meaning for American civilization. This has included a study of distinctive historical developments, the important ideas as expressed in the writings of the epoch, the contributions of specific men and women, the characteristic features connected with earning a livelihood, the function of the arts in the culture, the attitudes toward religion and education; in short, the attempt was made to see the nation as an entity at a particularly significant time.

The story of colonial life in this country is the story of men and women seeking a new life in a new land. From the previous study of man's development through the ages, the class was already acquainted with the Magna Charta and with the origin of some of the important rights of English free men.

One of the living elements of American heritage today is a common belief in the right of the individual to worship as his

conscience dictates. This freedom of worship was not automatically imported into this country along with chests and high-boys. As the members of the fourth-year class continued their study, they found that it was only when some radical, such as Roger Williams, expressed and suffered for an unpopular point of view that freedom for all was approximated.

During 1939-1940 the fourth-year students used two periods weekly for the development of special interests stimulated by their work. Some students, for example, constructed models of a typical New England village; others wrote and produced a play dealing with the modern farm problem; while others engaged in such activities as depicting history through cartoons and through a mural showing the development of the Bill of Rights.

In the study of American culture the use of a regional approach is a practical one. Concurrent with the unity of culture which may be found within a region, there is also a diversity of culture which reveals itself as the study of the region becomes more detailed. To complete the work on the region studied, the students used the class bibliography and the library facilities within the school, and such moving pictures as *The Plow That Broke the Plains*, *The River*, and *Pioneer Women*.

This study afforded an opportunity to gain an acquaintance with the different dialects of this country, the various foods peculiar to each region, and the diverse contributions made to the common musical heritage of the country.

Another important phase of regional study was the architecture as revealed in the various sections of the country. The diversity of styles found in the United States was in part explained by the adaptation of house construction to the particular physical and climatic requirements of a given locality.

In the approach described above, the writings of such persons as Bret Harte and Mary Wilkins Freeman, along with many others, supplied much of the local color for the different regions of the country. The students also studied such novels as *Giants in the Earth*, *My Antonia*, *The Virginian*, *Death Comes for the Archbishop*, and many other books which gave them a deeper grasp of the problems involved in the opening of the great West.

During one year the prevailing interest in women served as an

approach to the program. This interest was stimulated through a consideration of the outstanding personalities of the twentieth century. One of the first questions which the class raised was "What are the vocational opportunities for women in the twentieth century?" After investigation, reports were made to the group. The group was helped by such outside speakers as Henrietta Weber, only woman music critic for a newspaper at the time the study was being made. This study of contemporary vocations for women created an interest among the students as to who had been the pioneers in developing new fields of work for women. At the conclusion of this unit the students wrote and presented a play called *Women in the American Scene*, which was based upon their investigations and research.

Each class, during the eight-year period of the development of this course, has been concerned with the future of the American way of life. After discussion and reflection upon America's past and present-day life, the class, with the aid of the teachers, has formulated ideals which it feels should aid in shaping contemporary and future American life.

Thus it may be seen that, regardless of the particular approach employed, the major emphasis of the program has been upon understanding the ideal of democracy as it has changed and permeated larger areas of American life. It has always included an extensive reading from a wide range of American literature.

Within the general framework of this course, students are given many opportunities to practice the democratic way of life.

There are many opportunities for participating in democratic living in the school, home, and community. It is hoped that the realization of the objectives of this course, implemented by a deeper understanding of the background of the values of a democracy, will be attained wherever the child may find herself.

### *Fifth Year*

In 1934-1935 the coordinated program had been extended to the fifth year, and the senior high school theme, "Modern Civilization and Cultures," was continued. This was done by introducing the class to a study of some modern cultures other than

their own, giving the students the opportunity to develop a sympathetic understanding of society which would encourage an attitude of suspended judgment and tolerance. Four cultures with which an American seemed, at that time, most likely to come into contact during the next generation were chosen for study.<sup>14</sup> A more complete description of the fifth-year program will be found in the supplementary material listed at the end of this report. A unique feature of this program is the unusual emphasis placed upon the study of Soviet Russia and the main lines of Russian development during the nineteenth century.

### Sixth Year

The sixth-year program in social studies is devoted to a study of American problems and issues not only of significance today but also of probable importance in the world of tomorrow.<sup>15</sup>

For the year 1938-1939 the following objectives served as guiding principles for the development of the work:

1. To acquaint the students with significant aspects of modern life, and the effect which social forces have upon them as individuals.
2. To create in students an awareness of the existence of many complex and difficult problems, and to stimulate a feeling of responsibility for sharing in decisions concerning them.
3. To clarify the student's understanding of basic terminology.
4. To develop the habit of logical thought.
5. To inculcate the habit of objective analysis.
6. To cultivate the habit of regular and intelligent use of newspapers, magazines, and the radio.

An important concomitant purpose implied in the above objectives is to acquaint the learner with problem situations in his own community.

In the programs for the preceding years in the junior and senior

<sup>14</sup> Mary Harden, Mary Gardner Marshall, and Willis C. Armstrong, "Introducing High School Students to Modern Cultures Other than Their Own," *Teachers College Record*, Vol. XXXVI, May, 1935, pp. 676-687.

<sup>15</sup> Mary Harden, Willis C. Armstrong, and La Vergne Wood, "A Senior Social Studies Program: America's Problems and Issues," *Teachers College Record*, Vol. XL, December, 1939, pp. 198-207.

high schools, the subjects of art, music, English, and science have been closely coordinated with the main theme of the social studies selected for each specific year. In the sixth year, emphasis has been placed upon the possibilities of achieving the objectives through a close coordination of social studies, mathematics, and science, inasmuch as a study of current problems involves quantitative and technical aspects.

The first problem selected for intense study was that of propaganda.<sup>16</sup> This subject provides a suitable introduction to the leading issues of the current scene and to the problem of the intelligent use of terminology, and a satisfactory initiation into the methodology necessary for discussion of controversial situations.

A necessary corollary was a study of the methods of logical thought. The students were encouraged to analyze their own thought processes, and to recognize their assumptions and the fact that these were frequently deeply rooted in their prejudices. At this point emphasis was placed upon the need for factual information, sound reasoning, and the drawing of tentative conclusions.

They examined daily newspapers, representing all shades of opinion, and studied radio programs and newsreels.

During another year the study of propaganda was incorporated into a broader unit under the title of "Distribution of the News." Radio executives, commentators, and lecturers discussed their work with the class. Members of the class also interviewed news commentators and attended forums and lectures.

They considered consumer problems in relation to different occupations and localities. The class divided into groups to study different aspects of these problems. These were eventually reported to the entire class.

Some of the students preferred to continue with a more detailed study of income and its distribution. Reports were made, sometimes in forms of charts and graphs which demonstrated the major facts concerning income structure. Some of the topics reported upon by individuals and groups were as follows:

<sup>16</sup> W. C. Armstrong and La Vergne Wood, "Analyzing Propaganda," *Social Education*, May, 1940.

1. Earnings of Barnard College graduates over a period of years.
2. Operation of Engel's law in buying tendencies of people on different economic levels.
3. An examination of the ways in which persons in New York City live on small incomes. (The cases selected for this study were normal ones. Students from more comfortable homes expressed surprise when they began to realize the implications of the facts.)
4. A study of housing in New York City; e.g., slums and government housing projects.
5. Some specific problems of the consumer.
6. Consumer cooperatives.
7. Installment buying.

Labor's importance in the American scene gave it a prominent place among the problems to be studied. An historical approach to the study was made, and the growth of organized labor, along with capital-labor relationships, was traced from the Molly Maguires to the C.I.O.

At the time when income tax blanks were being filled out, it seemed appropriate to consider the subject of taxation. The objective was primarily to give the students a sense of the dual relationship of the citizen to the government, both as taxpayer and as beneficiary, and an understanding of governmental functions and financial obligations.

From taxation the class turned its attention to the study of natural resources. Problems were defined, readings suggested, and an organization formulated, after which a science teacher devoted two class periods to a study of oil as a resource, discussing its exploitation, its potentialities for use, and the need for conservation. Timber was likewise analyzed. Another science teacher discussed soil as a natural resource, erosion and erosion control, and the scientific needs of agriculture. This study of specific resources was then focused on a special area, the Tennessee River Valley of which the science teacher had a firsthand knowledge.

Thereafter the class analyzed the economic position of the farmer and recent legislative attempts to remedy it. A variety of

controversial literature, supplemented by short moving pictures and photographs, was made available.

It should be pointed out that a great deal of stress was laid upon current happenings during the course of the year. The propaganda study showed that the majority of the class were by no means habitual newspaper readers, and that considerable direction was necessary. Current affairs tests, designed for recognition purposes and not for memory exercises, were given without previous discussion. After correction they were utilized as a basis for classroom analysis of the events of the day, and as such proved vital and valuable. Students have been encouraged to read journals of fact and opinion—such as *Events*, *Current History*, the *Nation*, the *New Republic*, and the publications of the Foreign Policy Association—and to listen to such radio programs as “America’s Town Meeting of the Air” and the “University of Chicago Round Table.”

It is difficult in a program of this type to secure sufficient objective evidence to measure the depth or breadth of a student’s sensitivity to social problems. Certain tests of the Evaluation Staff of the Eight-Year Study were given. Many of these, in identical or similar form, had been used in the previous year with the same group.

Other material used in evaluating results has been of a more subjective nature. In the checking of papers, reports, discussions, and other written and oral data, the two teachers directly involved have cooperated in making final judgments. They have found that the students:

1. Have grown in awareness of problems and their complexity.
2. Have come to think more clearly and logically.
3. Have become more conscious of the necessity for precise meanings for the terms they use.
4. Have made progress in developing a sense of civic responsibility.
5. Have shown an extremely high sense of social responsibility in respect to their school affairs.
6. Have professed concern regarding affairs in general.

A problem in organizing a course of this nature is to determine the degree of intensiveness or extensiveness of the work.



Many difficult choices must be made in any process of selection and organization in the field of modern problems. Even though specific problems are studied, there is, of course, no guarantee that the training at this point will be applied in another area. The result may be that persons develop attitudes of liberalism in one area, and in others become conservative or dogmatically radical. While this may follow, it is the responsibility of the teacher to help students to develop habits and methods of work which will function for her in solving problems which she meets as a citizen.

In spite of the difficulties involved in presenting contemporary problems and issues to students of secondary school age, this presentation is a responsibility which teachers and other school authorities have no right to shirk.

### *Supplementary Material*

*Accompanying the Report of the Horace Mann School  
in the Eight-Year Study of Relation of School and College*<sup>17</sup>

#### CURRICULUM

1. Second- and Fifth-year Coordinated Programs
2. Subject Matter Areas as Reported by the Departments of the School
3. Report of the Work of Student Organizations

This report is accompanied by the pamphlet *Education for Constructive Social Influence through Student Organizations*, and excerpts from the Report of the Horace Mann Delegates Representing the School at a meeting of students representing those of the Thirty Schools in the Eastern Section, held at Baldwin School, Bryn Mawr, April, 1939.

4. Analyzing Propaganda (Reprint)
5. Human Relationships

A brief statement concerning an elective course in human relationships in the sixth year (twelfth grade).

<sup>17</sup> Obtainable by writing to the Horace Mann School, Broadway at 120th Street, New York City. Specify which sections are desired.

6. Physical Education and Recreational Program:  
Ten points of emphasis
7. Cooperative Planning by Teachers: An Example
8. Pupil-Teacher Planning  
A brief description of pupil-teacher planning with emphasis upon an all-school activity.
9. Guidance: Staff Cooperation for Individual Guidance  
Pupil records and reports as aids to individual guidance
10. Some Educational Trends

### EVALUATION

#### *Steps Toward Evaluation*

1. *In English*

A brief statement of ways in which the English Department is trying out and developing different types of evaluation.

2. *In Physical Education*

Cooperation—Social Attitude and Behavior Record

A plan for securing evidence of cooperation when a group project is to be carried out in physical education activities.

3. *In Industrial Arts*

A method of securing evidence in the growth and manipulative techniques as related to appreciation, habits of work, and learning.

#### *Studies in Evaluation*

1. *Free Activity Study*

A summary of some of the data on leisure-time activities of six groups of students in the Horace Mann School (made by the Evaluation Staff in the Eight-Year Study).

2. *Creative Expression*

A study designed to devise techniques and secure evidence for the evaluation of creative expression.

3. *The Teaching of Democratic Values Through Literature*

Development and interpretation of tests to determine the attitude of fourteen- and fifteen-year-old students toward democracy. The tests deal with specific elements of democracy, such as equality in economic opportunity.

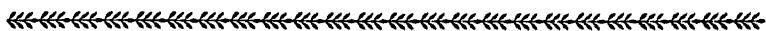
4. *Study Skills and Work Habits*

Use of library sources and facilities

Reading and organization of needed content in accordance with pupil purposes; e.g., written and oral reports.

# THE JOHN BURROUGHS SCHOOL

CLAYTON, MISSOURI



## *Type of School*

The John Burroughs School is a private, secondary, coeducational, country day school, located in Clayton, Missouri. The founding of the school in 1923 grew out of the desire on the part of a number of civic-minded citizens of Saint Louis to establish a secondary school in which the principles of progressive education might be applied. One of the founders' chief objectives was to create a school in which boys and girls would have the opportunity to deal directly with the problems and issues of the country, state, and immediate community, to the end that each pupil might become more aware of his own responsibility as a citizen and might be better equipped to assume a role of constructive leadership in adult life.

## *Administration*

The school is owned by the John Burroughs School Association, which is composed of all the parents of present and former pupils. It is operated by a director and faculty, and by a board of trustees. The director is appointed by the trustees, the faculty by the director with the approval of the trustees, and the trustees by the members of the school association. The financial and educational policies of the school are determined by the board of trustees; the actual operation of the school is the function of the faculty and the director.

As the chief administrative officer of the school, the director is responsible for executing the educational policy through his assistants, the teaching staff, the parents, and the pupils. He is directly responsible for the coordination of the forces of administration, supervision, and instruction. To two administrative assistants he delegates certain specific responsibilities. One assistant is responsible for the general supervision of the cur-

riculum in the seventh, eighth, and ninth grades; the other, for its supervision in the tenth, eleventh, and twelfth grades. These assistants in administration interview parents, pupils, and teachers; suggest modifications, additions, and changes in the curriculum; supervise teaching; and assist in making pupil programs.

To teachers are delegated certain responsibilities in carrying out the policy of the school. Their major responsibility is the guidance of pupil experiences. This guidance includes classroom management, individual assistance, reporting on the progress of teaching and learning, and recommending changes in the curriculum.

### *Admissions*

The school provides a six-year educational program, including grades VII through XII. The normal enrollment is 300, with 50 pupils in each grade, divided approximately equally as to boys and girls. Pupils entering the school come from many different schools in the city of Saint Louis and its environs.

Pupils who are admitted to the school must show by examination that they are prepared to do the work, and by conference that they have desirable qualities of citizenship. The examinations for the three lower grades are group achievement tests and individual intelligence tests; those for the three upper grades are individual subject examinations and intelligence tests. The conferences are personal interviews between the principal, the pupil seeking admission, and his parents; in most cases, conferences are also held with the principal and teachers of the school which the pupil has last attended. The information thus collected is presented by the director with his recommendations to a committee of admission.

### *Facilities*

The school facilities consist of a campus of 18 acres, upon which is located a general school building, a double gymnasium for boys and girls, and a small theatre seating about one hundred persons. Other facilities on the grounds include a terraced open-air theatre, four playing fields, five tennis courts, and a quarter-

mile track. The general school building includes, in addition to classrooms, a library of 5,000 volumes, two science laboratories, a kitchen and a sewing room for household arts, studios for painting and modeling, a general music room and four individual practice rooms, a dining room, and administrative offices. A recently completed addition to the general building provides additional classrooms, art and music studios, science laboratories, and industrial arts shops.

A total of \$525,000 is invested in the school grounds, buildings, and equipment. John Burroughs School is not an endowed institution but is operated entirely by tuition payments. The tuition charge is \$500 a year; about 10 per cent of total tuitions receivable is allotted in scholarships.

### *Pupils*

Pupils participate in the administration of the school through the various class organizations, advisory groups, and student government. To them is delegated the responsibility for their own conduct. They cooperate with the faculty in planning experiences, and initiate and direct various activities in the guidance of new students.

### *Parents*

Parents participate in the administration of the school by cooperating with the faculty in guiding the development of pupils. A close relationship is maintained between the school and individual homes. Parent representatives work closely with the advisers of each grade in planning meetings of the parents at which matters of school policy and general administrative and curriculum procedures are discussed.

### *Teaching Staff*

The present teaching and administrative staff numbers 37. Thirty-three of these are actively engaged in teaching. All members of the teaching staff hold bachelor's degrees or equivalent art degrees; 19 have master's degrees, 6 doctor's degrees, and 10 have done graduate study in foreign countries.

### *Graduates*

The first class was graduated from the school in June, 1926. Since then a total of 620 pupils have been graduated, of which number 588 have entered approximately 80 colleges. Fifty-five per cent of the graduates have entered Eastern colleges; 10 per cent, Southern colleges; 32 per cent, Midwestern colleges; and the remaining 3 per cent, colleges of the Southwest and Far West.

At John Burroughs the entire school is included in the Eight-Year Study of the Progressive Education Association.

### OVERVIEW OF THE TOTAL SCHOOL PROGRAM

#### *Philosophy Underlying the Program*

Although the philosophy of the John Burroughs School has always been implicit in its teaching, it was not formulated explicitly until 1938. At that time a committee of the faculty was appointed to draw up a statement which, after revision, was adopted by the administration and general faculty as a statement of the philosophy of the school.

This philosophy is based on the assumption that, in order to maintain our democratic principles in this period of rapid social change, we must have an educational system in which the individual and society are mutually cooperative. Such a system is founded on belief in the integral worth and versatility of man; in the dignity of individual expression in aesthetic and practical arts; in the possibility of a finely trained mind, readily adaptable to different situations; and on the belief that such an educated personality may contribute to his social environment the considered products of his training.

In the light of this statement our educational philosophy may be summarized as follows:

1. Education shall provide for the individual a series of ever-widening experiences in keeping with his needs and interests, touching the various aspects of human living, and developing to the fullest possible extent the abilities of a many-sided personality.

2. Education shall offer to the individual wise guidance and scholarly training, which will enable him as a socially sensitive and adaptable person to participate effectively in, and contribute abundantly to, the society in which he lives.

### *Areas of Experience*

To accord with this concept of education, a well-balanced school program will provide learning experiences in as many areas of growth and development as possible. Those areas are not to be considered as exclusive, since the pupil's development in any one area considerably increases his understanding of his experiences in the others; but, for our purposes here, the following areas seem to be of sufficient importance to warrant separate treatment.

*Physical and Psychological Development.* This area includes the biological adjustments necessary to proper physical development and the maintenance of physical well-being. It includes, likewise, an increasing understanding of the basis of emotional stability. Upon this foundation of physical and psychological development the pupil's personal philosophy is built. In this area the pupil is led to a conscious recognition of the ethical considerations which govern the direction of his own activities and which, in actual behavior, direct his action in accordance with the consequences of his personal philosophy.

*Social Adjustments.* The continuous change of the individual through the years of adolescence is marked by a lessening concern for himself alone and a widening perspective of his relations with the social groups upon which he is dependent. This implies a clearer understanding of the strong bonds of home and family and an increasing concern for his participation in community living. In this area the pupil becomes aware of his cultural heritage. He becomes conscious of the cause and effect of problems arising out of working together in a world society, shaped in part by the advance of scientific knowledge and its application. He gains an understanding of the contributions of differing culture groups to civilization.

With this background of knowledge, the pupil profits by wise guidance from those who understand his potentialities and are



sympathetic toward his limitations. Through his activities in the life of the school, he finds phases of society which stimulate his interests and provide opportunities for exercise of his abilities.

Sympathetic and intelligent guidance contributes measurably toward the development of the immature individual into a responsible social being. By the exercise of increasing self-direction, aided by wise guidance, the pupil acquires a growing sense of control over his experience and, through an ever growing sense of security, is able to make an effective life adjustment.

*Politico-Economic Relationships.* In the broad sense this area of experience deals with problems arising from man's attempt to control his natural and social environments. As an individual and as a member of a group, the pupil is concerned with his relationships to social discipline. These include an understanding of such kinds of social control as public opinion, custom, public law, political parties, and organizations of our democratic society. Through understanding of these kinds of social control he becomes concerned, in an effective and constructive manner, with his personal relationship to them. Along with the pupil's growth in the understanding of and participation in political life is his deepening consciousness of the problems of society's regulation of itself.

Further experiences as an effective producer and consumer lead the pupil to an appreciation of his function in society. As a producer he faces the problem of selecting a life vocation and also faces the technological changes of the present day, which result in a continually changing economic world. As a consumer he is concerned with his relations to the industrial, agricultural, and commercial worlds. Through contacts with these phases of economic life, he learns the essentials of efficient purchasing; he becomes aware of different methods of regulation and control of economic life. This area provides a normal fulfillment of the pupil's experiences. As a result, he is better able to assume the responsibilities of citizenship and to make a satisfactory adjustment to the political and economic aspects of society.

*Aesthetic Experiences.* This area of experience deals with the aesthetic and emotional adjustments which the individual must make to his surroundings. The pupil is acquainted with many of the means of expressing emotion, whether it be in music, in lit-

erature, or through the graphic and plastic arts. The area deals also with the contemplation of the ideal in religion, politics, mathematics, and science. Through his experience with expressions of beauty, the pupil begins to develop his own standards of the beautiful, whether in graphical or in intellectual form; and he becomes acquainted with the standards of beauty as they have been expressed in other times and cultures. Finally, he discovers additional experiences for himself and sometimes creates beauty for others, thus developing his sensibility and aesthetic attitude toward situations in which he may find himself.

*Manipulatory Skills.* The secondary school, especially at the earlier levels, is concerned with the area of manipulatory experiences and skills. There are certain skills basic to effective work in any phase of life activity. These are facility in expression, both oral and written; ability to acquire information through the spoken and written word; familiarity with the fundamental operations in our number system; and certain manual skills. The mastery of these fundamental skills is basic to the development of other more specialized skills at higher maturity levels.

*Intellectual Effectiveness.* Experience in this area is an essential factor in securing and using the experiences of each of the other areas. Specifically it deals with the development of habits of clear thinking. Reflective or logical thinking is fundamental to the solution of problems, which is the basis of effective adjustment to social change. The experiences of the pupil in the other basic areas reveal to him situations to which he may apply a logical process of reasoning in reaching an objective solution. Likewise these experiences lead him to integrity of purpose, and to an intellectual curiosity and enthusiasm which carry him into fields of independent investigation.

Through experiences in this area, the pupil grows toward the achievement of certain desirable attitudes of mind, such as tolerance, open-mindedness, freedom from superstitions and unfounded beliefs, willingness to act on the basis of tentative evidence, and unbiased decisions.

### *Educational Values*

In each of these areas of experience, guidance must be given toward certain goals which characterize the behavior of an in-

dividual in a democracy. Accordingly, the life of the school society is directed toward the pupil's development of the following fundamental educational values which grow naturally from the basic areas of experience.

*Social Sensitivity.* A socially sensitive individual displays a sympathetic and unselfish interest in the problems of others; he is ready to assume social responsibility and to develop a critical evaluation of his own behavior in relation to his social world.

*Aesthetic Appreciation.* The values here to be achieved arise from a training in sensibility. This involves development in the pupil of critical awareness, leading to his appropriate and satisfying response, both intellectual and emotional, to ordered experience.

*Creativeness.* This aspect of personal development, which leads to the integration and expression of past experiences, is based upon an alertness to situations and upon a willingness to undergo the mental and physical discipline necessary for original production.

*Problem Solving.* The educational value particularly inherent in the area of Intellectual Effectiveness is that type of behavior which we have chosen to call problem solving. The pupil looks for, and is able to recognize, inherent conflicts which form a problem situation; he gathers information within a wide range concerning its solution; he sets and tests numerous hypotheses; and, when all available evidence is presented, he draws conclusions consistent with the data. Finally, he feels a responsibility for the future application of his knowledge in confronting new situations.

*Emotional and Physical Stability.* The values to be attained here are the development of a healthy body and of a wholesome and happy state of mind. While the pupil is given opportunity to realize his potentialities, he is led to appreciate his limitations without undue emotional disturbance and to recognize that his development is normal for him.

*Effective Self-direction.* Through his experiences, the pupil is encouraged to assume responsibility for his own behavior and for the conduct of group life, to assume leadership where his talents warrant, to plan intelligently for his future, and to be a sensitive and effective citizen of his society.

These educational values are the objectives of the school; they

broadly govern the selection of teaching materials from the basic areas of experience and guide instruction so that the pupils may attain the best possible development of their natural abilities in these essentials of education. Through growth in these educational values, the pupils are aided in becoming effective individuals, competent in adjusting themselves to the democratic society of which they are a part.

### *Evolution of the Program*

Since the John Burroughs School was founded, seventeen years ago, the faculty, parents, and pupils have been continuously concerned with the type of education it provides. These groups have never felt that the work of improving the curriculum has been completed, but rather have thought of education as a program which, with effort and study, can always be improved.

Teachers, parents, and pupils feel free to make suggestions for improving the curriculum. These suggestions, coming from individuals or from groups of individuals, are referred to the faculty for discussion and study. If, after faculty consideration, the proposals seem to have value in helping to attain the purposes of the school, they are referred to a suitable committee for further study. If the report of such a committee is approved, a group of teachers is charged with the special responsibility of developing ways and means of putting the proposed changes into operation. This group of teachers is further responsible, through regularly scheduled meetings, for the continued guidance and development of the new work.

This democratic method of treating suggestions for improvement and of frank and free discussion among parents, pupils, and teachers has brought about steady growth for all concerned. Parents have become a constructive, cooperative force in the affairs of the school; pupils have shared a satisfying and a developing experience; and the teachers have grown in many ways, especially in a willingness to examine critically the existing school curriculum, in the ability to disagree and to exchange opinion in a constructive manner, and in a desire to work cooperatively on the problem of providing an ever-finer experience for children.

The statement of our philosophy indicates that those interested

in the John Burroughs School are concerned with creating in its pupils a desire for growth, and with providing the type of curriculum which will make that desire effective. During recent years our efforts have been directed toward a more effective achievement of these purposes.

Various methods of organization and of instruction have been and are now being employed in order to achieve these purposes. Although we are interested in these different organizations and methods of instruction, we recognize them as means to an end only and not as ends in themselves. Much is said and written about "core curriculums," "unified curriculums," "broad field curriculums," and the like; to us the matter of importance is the function of education in present-day America. Organization and method are of importance only to the extent that they are effective in achieving our purposes.

The following are some of the means employed in attaining our goals:

1. *Revision of Existing Courses.* Broad fields of study such as science, English, mathematics, language, the arts, and social studies have been re-examined. The purpose of these fields has been clearly stated in the light of our philosophy, and each has been challenged to contribute its full share to the effective educational program of the school. Materials in these fields have been reorganized, some materials omitted, others added, in order that we may more directly achieve the purposes stated in our philosophy.

2. *Development of New Courses.* In order to explore certain areas more fully, new courses such as the "Arts Background Course," the "Psychology Course," the "Ancient Language Course," and the like have been developed. These are described in subsequent pages. The materials of these courses aid in developing a well-rounded personality and in providing an increasingly effective program of education for children.

3. *Relationship of Materials.* It is the feeling of the faculty that materials which make learning more effective and more complete should be brought together. This correlation or unification of materials continues to take many different forms:

- a. There have been unified courses and core courses in the

school each year since 1930. None of those introduced in 1930 is retained in its original form. Some have been discontinued because we found them ineffective in achieving our ends. Throughout our experience there has been growth, and today our organization of core courses and unified courses is more effective because of the successes and failures we have had.

- b. There has been a growing relationship of the materials of one field of study with those of others. For example, a class studying ancient civilization calls upon the teachers of science, mathematics, music, language, and the arts to work with that particular class for periods ranging from several days to several weeks in order to develop fully the various aspects of that civilization. A class in mathematics, when discussing measurement, spends several weeks with the science teachers in their laboratories learning about exact measurements and the measurement of great distances; or, when studying the form of geometric figures, works in the art room, after which a trip to interesting buildings in the city gives a concrete example of the matters under discussion. These are but a few examples of a type of unification or relationship of materials which is widely employed at the John Burroughs School.

Thus our program, while retaining what has proved from past experience to be effective, has always been sufficiently flexible to allow for the introduction of any changes which we believe will lead more directly to the achievement of our purposes. Some significant developments in our present curriculum are discussed in the following section.

#### DEVELOPMENTS WHICH THE SCHOOL CONSIDERS SIGNIFICANT IN THE LIGHT OF ITS PHILOSOPHY

Our entire school program, as indicated in the last section, has been set up by the staff with two goals in mind: the highest possible development of the individual, and his effective participation in the society in which he lives. Certain aspects of the program,

however, deserve special note, either because they contribute most directly and obviously toward the achievement of these goals or because, in contributing toward that achievement, they involve new emphases or shifts in emphasis in the teaching procedure. To show more clearly the significance of these aspects in the light of our philosophy, they will be treated as: (1) those that contribute primarily to the development of the individual; (2) those that foster his development as a member of society; (3) those that, under the guidance program, further this twofold development.

### *Aspects of the Program Leading to Individual Development*

Education for the highest development of the individual must take into account the education of the intellect, of the emotions, and of the physical being of the student.

*Problem Solving.* A committee of the John Burroughs staff has made a special study of problem solving as an important value in the training of the intellect. Development of ability in problem solving teaches the student the need for logical, clear, and independent thinking; increases his power for such thinking; and at the same time shows him the importance of mastering factual material in order that he may apply it. This new emphasis on the development of ability in problem solving has resulted in the reallocation of materials in some fields, notably in mathematics, science, psychology, and social studies. The head of the Mathematics Department reports on this change as follows:

An implication of the teaching for problem solving is that the pupils must be presented with whole problems. Situations which are real to them and in which they can find a valid interest must become at least part of the teaching material. It is only through a chance to consider such problems that students will be able to practice all steps of the problem solving technique in the mathematics classroom. As a result such problems have become a definite part of the mathematics curriculum. The evaluation program in mathematics indicates that emphasis on problem solving is a valuable aspect of pupil experience.

Mentioned in the last paragraph is a major trend which has become popularized as the Nature of Proof. Teaching for the transfer

of the values of rigorous mathematical reasoning to life situations has long been a controversial question. We believe we have gleaned from contemporary studies all the best knowledge, and in addition have contributed many of our own ideas in order to build a tenth grade course which is truly functional and mathematical.

Students have been taken more into our confidence and are given a larger share in planning the course of a problem. At all times an effort is made to take account of their interests and needs. All the way through the six years of our mathematical program pupils take a part in developing those aspects of growth in which they are to be evaluated.

In science also the main emphasis has come to be more on the use of the subject matter as a means for giving training in problem solving, and methods of learning and ways of using subject matter have been more seriously considered than ever before. In social studies great stress is laid on growth in the ability to think, through the study of the interpretation of data and through training in logical reasoning and in the application of principles. In child psychology the second part of the course deals largely with the analysis and solution of personal problems.

*Arts Program.* The John Burroughs School has always laid great stress on experiences in the arts. Painting, sculpture, music, and dramatics are regarded as an integral part of the curriculum. This stress is the result of a conviction on the part of the staff that experience in the arts provides an outlet for the emotions, training in disciplining the emotions, and satisfaction of the students' desire for creative activity. The arts program is designed to give opportunity to every type of student. The teaching in sculpture and painting is individual, except when students group naturally and voluntarily to learn the use of a new medium. In music, experience is offered in choral singing, orchestra, ear training, and harmony. Time is provided for individual music lessons and practice, and since the reception of the gift of the Carnegie Music Set certain periods have been set aside when the students may listen freely to records of their own selection. In dramatics, which by its nature is best as a group activity, special attention is given to personality development and to training in control of the emotions.



*Arts Background Course.* For the past five years a course called the "Arts Background Course" has been required of all students in the tenth grade. This course is designed primarily to provide further experience in the arts, and to show the interrelation of the arts, so that students already interested in one art may see the possibilities for expression in another medium. Originally the course touched on many fields, including units not only in painting, sculpture, music, dramatics, and architecture, but also in the dance, the household arts, and the industrial arts. This plan was found to be so broad in scope as to place the course in grave danger of becoming superficial, and the units were accordingly limited to painting, sculpture, music, dramatics, and architecture, each unit being taught by a specialist in the field. Planning for each unit is done by a committee composed of all the specialists under the direction of a general chairman, so that the resulting course becomes a well-integrated whole.

*Physical Education.* To arouse in the student a respect for his body and to give him an understanding of his physical abilities and limitations are the chief aims of the Physical Education Department. The program of sports is so planned that every child, whatever his ability, may take part. In addition to this program, instruction in the functions and the care of the body is given to all students. The instruction in health is described as follows by members of the Physical Education Department:

In each of the seventh, eighth, and ninth grades classes are held for boys and girls separately once a week throughout the school year. Through informal discussion it is hoped that we may interest the child enough in his body so that he will find out how to make and keep it efficient and comfortable. We try to focus the attention of the students upon using what they know rather than upon accumulating facts. The information given is that for which they will have use immediately or in the near future. Topics for discussion are obtained from questions which they ask, or from such material as we have found from experience they will need to understand to prevent unnecessary disabilities. Scheduled classes are discontinued in the tenth, eleventh, and twelfth grades. However, the instructors are always at hand and approachable for individual conferences.

*Child Psychology Course.* A course in child psychology, first included in the curriculum in 1934, had its origin in the request

of a group of eleventh grade girls who asked for a course that would help them to understand the behavior of other people and to discover the best ways of dealing with them, and that would assist them in working out their individual difficulties.

In order that the pupil may begin by studying behavior in its simplest forms, the first part of the course deals with the development of children. A trip to a maternity hospital is made so that the pupils may observe the reactions of newborn babies. After this trip an obstetrician explains the prenatal development of the child. Later the school biologist discusses such questions of heredity as will give the pupils an understanding of the hereditary differences among children of the same family, and of the relative influence of heredity and environment. With this background the study of children is resumed, with trips to an orphans' home, several nursery schools, and other institutions.

By the middle of the year the class is ready to consider the problems of adolescence. The topics discussed are suggested by the students themselves. Some of the questions covered by a class are physiological maturity, individual differences in mental maturity, criteria of emotional maturity, achieving independence and assuming responsibility, making friends and winning one's place in a group, adjusting to the opposite sex, learning to get along at social functions, discovering one's own interests and abilities, developing one's personality, and arriving at a philosophy of life.

The practice the pupils get in the technique of problem solving is one of the most important features of the course. A study is made of the problems involved in the prevention of behavior difficulties in early infancy, of behavior problems in the nursery school period and methods of remedial treatment, and of problems of adolescence as found in the case histories of adolescent boys and girls. After such study the pupils are ready to see their own problems more objectively and have learned methods that will enable them to solve them intelligently.

During the latter part of the year the course is conducted to a large extent by the students themselves. Each pupil writes a term paper on some problem that she thinks especially important. Any topic that seems vital to the individual and has to do with her immediate life is accepted. Sometimes, during the final month

fore the class. The last field trip is usually an excursion or other entertainment for underprivileged children, which the girls initiate, organize, and carry through entirely on their own responsibility.

*Activities.* In order that the student may have every possible opportunity for development through following his interests, one period each day is set aside in which each student in the senior school may pursue in some detail personal interests. While his election of activities is free, once having made his choice he must work consistently and constructively, under the supervision of the faculty directors of the activities. Any of the arts may be elected, but the experience in activity periods need not be limited to the arts. Independent scientific investigations may be carried on for the Junior Academy of Science; writing and editorial work may be done for the school paper, the school magazine, and the yearbook; and the program includes activities so diverse as typing, rifle practice, and photography. As most of the activities are scheduled to meet at least twice a week, a student can rarely carry more than two in a year.

#### *Aspects of the Program Leading to Social Development*

It would be absurd to assume that any aspect of the school life contributes entirely toward individual development or entirely toward the development of the individual as a member of society. The courses, methods, and activities already discussed, however, are those that have been evolved primarily to effect the best possible type of individual. Other aspects of the John Burroughs program, while still contributing toward that development, exist chiefly for the purpose of training the student to become a constructive member of society.

*Social Studies.* The program in social studies plays an important part in the achievement of this goal. The following discussion is quoted from material prepared for Volume III of this report:

Assuming its role as one of the socializing influences, the Social Studies Department in the John Burroughs School attempts to make its contribution through the study of contemporary problems, through

contact with the ideas of forward-looking social writers, and through experience in the practice of successful group living.

The underlying philosophy of the program is based upon a belief in the importance of realizing in our country a democratic way of life. Democracy is considered as an ideal and, therefore, little attempt is made to define it in a literal sense, or to think of it as less than a complex objective of society. The program assumes that, with due appreciation for the achievements of our country, there should be no attempt to ignore the deficiencies in our social, economic, political, and cultural standards, and procedures.

Such a philosophy presents the challenge of making the social studies program an experience in democratic living. The instructors believe that schools and classrooms should themselves be laboratories not only in which the ideals of democracy may be studied but also in which the practice of democratic living may be followed.

*Seventh Grade Course.* A recent innovation in the program is the introduction of a new course in the seventh grade. This course combines work in social studies with work in English, and is taught by a teacher who has had experience in both fields. The course is designed to give the students the skills, techniques, understanding, and aesthetic experiences usually derived from a seventh grade English course, but to give them as they contribute to or are an outgrowth of experience in social studies. Emphasis is placed on keeping the materials of the course close to the interests and needs of seventh grade students. The class has a share in the planning for the course, though a preliminary outline, which may or may not be followed, is made by the teacher. The course opens with a unit in which the members of the class learn to know one another through discussing experiences they have had before coming to John Burroughs, and through a comparison of those experiences. This discussion is followed by an examination of the John Burroughs School as a community—the administration, the school government, the social life, and the type of education represented in the school. Other types of education are then discussed, and the students are led to investigate the education of the children of other lands. This investigation leads into a study of the remote backgrounds from which the families of the students have come, and even-

tually into the study of immigration. This study raises the question "Why did your ancestors come to Saint Louis?" and the answer involves study of the history, industries, and resources of this locality.

*Field Trips.* Because the John Burroughs School is located outside the Saint Louis city limits, it is sometimes difficult to bring the students into close contact with the life of the city. For this reason it is the practice, in many of the classes, to make trips to various institutions in the city. Thus the classes in social studies visit the Missouri School for the Blind, the Central Institute for the Deaf, a community settlement, the Federal Reserve Bank, the Elias Michael School for Crippled Children, and make a survey of the Saint Louis region in order to understand the natural factors that helped to determine the growth and development of the city; classes in mathematics visit various banks; the class in child psychology visits a maternity hospital, an orphans' home for young children, and various nursery schools; the students in art make frequent trips to the art museum; and other classes introduce trips when the opportunity arises.

*School Government.* One of the most important and characteristic aspects of the life of the school is its government. It is based on a constitution drawn up by students and faculty advisers and accepted by the assembly. This assembly, composed of the entire student body and all faculty members, meets at regular intervals to discuss and formally to pass upon matters pertaining to student interest and student conduct.

According to the constitution, the student body takes the major responsibility for the conduct of the students in the study hall, in the library, in the dining room, in the halls, and on the school grounds. In any of these places it is the responsibility of every citizen of the school to see that conduct is orderly and constructive. The legislation accomplished by the assembly is usually brought before it by the Student Council, which is made up of the Speaker of the Assembly and seven members elected at large from the student body. The Council meets to discuss matters to be brought before the assembly and to consider the best interests of the school; but, though it may formulate rules to enforce the constitution, no matter of new and vital importance

may be decided by it, but must be brought before the assembly and put to a vote. The enforcing of the rules made by the assembly is the business of the Student Court, which is made up of five members elected at large from the student body. Cases are tried before this court and its faculty adviser in open session. Elections to the Council and the Court are held annually, in the spring. Candidates are nominated through primaries, and in a series of special assemblies must attempt to justify their nomination and prove their fitness to hold office by answering questions put to them from the floor. The new members of the Council and Court are inducted into office immediately after the final elections, which are conducted by secret ballot.

The meetings of the assembly and the whole procedure of the elections give the student excellent training in parliamentary procedure, acquaint him with the American methods of election to office, and accustom him to speaking before a large group. The responsibilities placed upon him as a citizen of the school prepare him in some measure to take his place as a citizen of a larger community. Further training in cooperation and experience in the less formal aspects of social life are offered through the school dances, of which there are several each year, through the assemblies that are not legislative assemblies, through the school plays and concerts, and through the Christmas Pageant, in which the whole school takes part.

#### *Guidance as a Means of Individual and Social Development*

All matters pertaining to the life of the school and some individual problems are discussed in the meetings of the advisory groups. These groups meet for 10 minutes each morning and for 30-minute periods three times a week. There are 12 advisory groups, one for the girls and one for the boys of each grade. The division by sexes was originally made at the request of the students, who felt that such division facilitated discussion of many problems. Upon the 12 advisers rests the major responsibility for student guidance. Each adviser keeps a careful record of the progress of every student in the group, in

which is included an account of the problems involved in that progress. These records are filed for the reference of the student's future advisers. The adviser helps the student plan his program, confers with the student about his individual problems, and has frequent conferences with the student's teachers and parents regarding his progress.

In addition to the work of the advisers, certain other provisions are made to insure the best possible guidance for the individual student. When a student enters the school, investigation into his background and his performance in his former school is made through conferences between the head of the John Burroughs School and the parents of the student, and between the director of John Burroughs and the head of his former school or, failing this, some of his former teachers. When, during his stay in the school, he encounters any serious difficulty, conferences are held which are attended by the student, his parents, the director of the school, and all of the student's teachers. Reports of each student's progress are made to his parents at regular intervals, three of these reports each year being fairly exhaustive paragraph reports. When the student is ready to decide on his college, the decision is made only after conference among his parents, the student, his adviser, the director of the school, and the principal of the senior school, whose particular province it is to keep in close touch with the colleges. If possible, these conferences are supplemented with others between the student and the representative of the chosen college. As many of the students are undetermined about their future vocation when in the junior and senior years, meetings are held each year at which specialists in various fields are brought in from outside the school to discuss the vocational fields which they represent with the students.

Perhaps the most important factor contributing toward successful guidance of the students of the John Burroughs School is the close and informal relationship existing between student and teacher. The students at all times feel free to go to members of the faculty with their problems. In order that such conferences may have value, it is necessary that the members of the faculty keep in close touch, not only with the students, but with each other and with the work of all departments.

In order that the parents may be at all times in close touch with the work and aims of the school, meetings of the parents of the children in each grade are held in order to discuss the problems of the grade, both academic and social. For parents who desire further discussion of child psychology and trends in modern education, a child study group has been organized. Members of the faculty are invited to lead the discussions of this group. Such group meetings have proved valuable in promoting understanding between parents and faculty.

#### EVALUATION OF THE PROGRAM IN TERMS OF ITS PURPOSES

Evidence may be drawn from a number of sources in evaluating the work of the school in the light of its purposes. Chief among these is the information to be obtained from objective tests and teacher observation of pupil progress. In the collecting of objective data we have made use of Progressive Education Association Tests, of various national standardized tests, and of testing programs developed by the teachers in their fields of study. In all courses progress toward certain objectives can be estimated only through direct observation of the pupil's behavior; in some courses this is the sole means of evaluation.

These data are made available to the pupil's adviser, who uses them as a basis for further guidance; they are also used in quarterly reports, which keep his parents informed of the pupil's progress.

Further evaluation of the work of the school rests on evidence obtained from colleges and from parents.

#### *Interpretation of the Results of Progressive Education Association Tests*

During the fall of 1939 and early spring of 1940, five of the Progressive Education Association Tests were given to the eleventh grade and three to the twelfth grade. In addition, two other tests were given to those eleventh grade girls who were taking the child psychology course. We shall make a brief summary and interpretation of each of the tests given, pointing out any pronounced tendencies that seem to be indicated.



*Interpretation of Data Test (2.5)*. This test calls into play those methods of dealing with factual material which are conducive to sound thinking, and thus is valuable in testing one of the main objectives in our teaching. The results reported here give a measure of our success in this respect.

In comparing the achievement of our school in this test with that of 61 other schools, we find that our students are extremely high in their accuracy in reading and interpreting data. When we analyze the particular phases involved, we find that only one group is higher than ours in differentiating true statements from false; only two groups surpass ours in recognizing the limitations of the data. Although our eleventh grade pupils are in the upper fourth of the 61 groups in this respect, relative to their own high standards, they need to strive for improvement in those inferences which require delicate manipulation of data and subtle differentiation. They avoid crude errors and do not jump to conclusions. They make few mistakes in drawing inferences; when they do, they are more likely to be overcautious than undercautious.

The results obtained by the twelfth grade upon this same test show the same high accuracy as the eleventh grade. Only four groups of the 26 other groups in the experiment are higher in judging when data are insufficient and in judging whether they are true or false. The twelfth grade shows marked development over the eleventh grade in being able to identify the more subtle differences or the probable reliability of the data. However, this group shows less caution in making inferences and possibly on this account makes more errors than the pupils in the eleventh grade.

*Nature of Proof Test (5.21)*. The Nature of Proof Test is another instrument that helps to evaluate the degree to which the pupils are achieving the school's objective of clear, sound thinking. This was given to last year's eleventh and twelfth grades. The results are compared with 12 and 7 groups, respectively, from other schools in the Eight-Year Study.

Here again we observe, in both groups, caution and a high degree of discrimination. The students are critical of assumption, sometimes to the point of ignoring many implications or important relationships between ideas. But once they have chosen

the considerations with which they have decided to deal, they carry out their reasoning in a critical and accurate way.

*Application of Principles in Science Test (1.3a).* This test covers another phase of thinking and throws further light on the ability of our pupils to solve problems. However, our eleventh grade pupils will have to be compared with twelfth grade pupils as only two eleventh grades took the test last year.

In the ability to arrive at the correct conclusions, our eleventh grade is at the median for twelfth grade performance in other schools. In giving reasons for the conclusions arrived at, although there were not so many problems attempted as in the case of the twelfth grade, our pupils have comparatively few wrong conclusions. Of the unacceptable reasons given, our pupils are much less likely to assume conclusions, and they cannot be diverted in their thinking by ridicule or by emotional or intellectual coercion. They also rank high in consistency when compared with the twelfth grade groups.

*Scale of Beliefs (4.21 and 4.31).* Upon this scale we can compare the beliefs and attitudes of the pupils of the John Burroughs School with those in 14 other schools. The statements in the test present liberal and conservative points of view concerning such subjects as democracy, economic relations, labor and unemployment, racial attitudes, nationalism, and militarism. The results give us some estimate of the school's success in carrying out one of its main objectives, the development of concern for the rights of others and respect for their opinions.

As a group, our students stand higher in their liberal attitude toward nationalism, race, and economic relationships than most of the other groups and at about the median in their attitude toward democracy and labor problems. Our pupils seem to have come to definite conclusions on more issues than the young people in the other groups, and the consistency of their decisions is relatively high.

In the distribution of individual scores there is wide variation. There are some few pupils who are very uncertain and inconsistent in their attitude toward most of the questions covered. However, none of the pupils is ultraconservative on any of the questions.

*Interest Index (8.2a).* One of the practices of the school has

been to allow each pupil the freedom to explore many fields of interest and to help him to develop fully his individual potentialities. This questionnaire throws light upon the school's success in this respect. The questionnaire, which attempts to sample the interests of pupils in their school subjects and activities, was given during the school year 1939-1940 to the eleventh and twelfth grades, and their scores are compared with 21 and 9 other groups respectively. In the interpretation of the results the two grades will have to be dealt with separately as their patterns of interest are very different.

For the eleventh grade, the highest areas of interest are foreign languages, fine arts, music, and mathematics. In each of the areas mentioned, fewer than three groups out of the ten have a median as high as, or higher than, the median of our group. By the same type of comparison, the general interest in manipulative activities and business is our lowest. More than one-fourth of the students have significant likes in home arts and fine arts. From the median tables it is evident that, although there are some who do not like mathematics, our school on the whole is more favorable to it than most other groups.

The sequence of the preferences of this group is interesting and unique. When the tests were given, there was no other school in which foreign language stood first in general preference. There were only a few schools in which fine arts and music stood as high.

In general, one might say that the group has a large proportion of likes and only a minimum of negative responses. It is evident that each student seems to have a distinctly personal pattern with outstanding likes in certain areas and a few dislikes in others. This distribution can be considered as a discriminating and healthy pattern of interests. There is no student who is outstandingly negative in the sense of responding with dislikes to a majority of items in the Interest Questionnaire. Equally, there is no student who has responded predominantly as liking everything in it.

An analysis of the general pattern of interests of the twelfth grade group reveals certain unusual patterns that have not been noticed in many other groups. One of these is a strong leaning

toward physical science and biology. This seems to be more evenly distributed among boys and girls than is generally true. Usually the greatest number of persons with significant likes occurs in industrial arts, business, home economics, and sports. In contrast to the eleventh grade group, there is in the twelfth grade little manifest interest in fine arts. There is a large number of students with a positive dislike for artistic activities. Mathematics seems to be a field of outstanding interest. The lowest interest areas are in industrial arts, home economics, and manipulative activities in general. In home economics, however, this is due to strong dislikes on the part of the boys and of some of the girls. There are, also, very strong likes on the part of some of the girls. In music and in the arts there are some very high scores of liking on the part of a few, and either a dislike or indifference on the part of others. In liking for mathematics there is little uniformity in the group.

It might be pointed out that the results of this questionnaire bear witness to the wide range of the individual interests that have been free to develop in the school.

*Scales of Personal and Social Adjustment (8.2b and 8.2c).* The scales of Personal and Social Adjustment evaluate many of the attitudes, interests, and forms of behavior that are emphasized at the John Burroughs School. These scales were given to the eleventh grade girls, at the beginning and end of the course in child psychology. The purpose of this course is to develop in the pupils psychological insight and understanding and to encourage them to use their knowledge in working out the problems in their own lives.

We can point out some of the traits in which most growth was shown. In comparing the John Burroughs pupils with those in similar Midwestern schools we find that, although the results followed very closely the same general pattern, our pupils recorded higher percentages of likes in activities which showed an interest in other people—their own families, the opposite sex, and their own sex—and in school and out-of-school activities.

The most pronounced changes in the pupil's preferences during the school year occurred in the field of social activities. They not only showed greater liking for many forms of social

behavior, but recorded greater dislike for solitary activities. They also showed greater dislike for aggressive forms of behavior. This might be interpreted to mean that they were more liberated from antagonisms. They might have become more secure and happy in the group and so no longer needed to express themselves in aggressive behavior.

Another marked change indicated had to do with the pupils' willingness to accept and express their impulsive tendencies and the degree to which they were willing to put them under restraint. Although practically no change was shown in regard to their attitude toward their own impulses as natural and acceptable, there was a marked increase in the number of situations requiring greater control of their impulses which they said they liked and a decrease in the number which they said they disliked. The fact that the acceptance of their impulses at the beginning of the year was comparatively high in relationship to other groups, and their severity with themselves relatively low, would indicate a more desirable balance between these two behavior tendencies.

#### *Data from the College Follow-Up Study*

Evidence concerning the effectiveness of the program in achieving the objectives of the school is contained in a report to the John Burroughs School by the college representatives on the Evaluation Staff of the Eight-Year Study. In September, 1939, one of this group wrote of the graduates of the John Burroughs School as follows:

In the first place, they seem to be much interested in the arts—in the role both of performer and of audience. Many of them sing in the college glee clubs and choirs or play instruments in the college orchestras. Others paint or do artistic photography; several write; a few are much interested in dramatics. Practically all of them attend concerts, plays, and art exhibits whenever possible. They are fond of reading.

They are nearly all active in one or more informal sports, although they are not willing to sacrifice other activities for this interest. Several of them write for their college publications.

They are, as a group, an extremely social lot, but they are not at

all dependent upon others for recreation, since almost to an individual these students have personal hobbies which take the form of collecting, handicrafts, skills, or private research, which do not require a group for their enjoyment.

An analysis of a questionnaire given to the class of 1938 shows the John Burroughs group rating higher than their comparison group and the median for the Thirty Schools in activities involving social consciousness; individual accomplishments; verbal facility; physical activity; intellectual activity; home arts and manual skills; active aesthetic pursuits; passive aesthetic pursuits; sociability; solitary occupations.

The John Burroughs group ranked lower than their comparison group and the median for the Thirty Schools in none of the listed activities. They did rank below the median for the Thirty Schools in participation in campus affairs and in all college organizations in which individual accomplishment is not important. In both of these areas, however, they were identical in rating with their comparison group.

They listed fewer problems than their comparison group in study skills, time management, and personal adjustment; fewer problems than the median for the Thirty Schools in study skills and time management.

### *Reactions of Parents and Community Groups*

The following evaluation of the John Burroughs program, offered by a mother whose three children have been graduated from the school, summarizes the attitude and experience of many of our parents:

The type of education offered by the John Burroughs School must stand or fall upon the results achieved over a period of years with a large number of students. Founded seventeen years ago, and having graduated six hundred and twenty students, the results of this school have significance.

Parents entering their children in recent years have done so because they feel their children will be presented with the opportunity to develop into democratic, socially adjusted individuals, well equipped with the tools of learning, who can take their place in the larger world of college, and later of life, with a good chance of achieving successful personal living.

In these days of uncertainty, parents cannot prepare their

children for specific ends. They can only hope that in the formative years their girls and boys will learn to love liberty and to work for it, to cherish justice and practice it, to respect themselves and their fellows, and to perceive the beauty of their world. These virtues would indeed be a bulwark against "outrageous fate." Through the caliber of its school government and the quality of its sportsmanship, the John Burroughs School sets conditions in which these virtues are brought into play daily, directly and indirectly. They are strengthened by use.

As class after class is graduated and as the evidence accumulates, those of us who watch become more firm in our belief that the philosophy and methods of Progressive Education lead our children in the way we would have them go, and we appreciate the privilege of placing them in a school which so ably devises and employs these methods and which is so sincere an exponent of this philosophy.

# THE LINCOLN SCHOOL

NEW YORK CITY

Lincoln School was established in 1917 in the city of New York by the General Education Board as a result of nationwide interest in the challenge flung to American education by Abraham Flexner in an article called "The Modern School," which first appeared in the *Review of Reviews* in April, 1916. In 1927 the General Education Board granted the Board of Trustees of Teachers College a fund of \$3,000,000 for general endowment of Lincoln School. Lincoln School is the only endowed educational experiment in elementary and secondary education in this country. It is experimental in spirit, purpose, and method. Its distinctive function, as one of the affiliated schools of Teachers College, is that of adventuring beyond accepted practice into areas where educational practice and theory are in the process of formation.

Lincoln School is located at 425 West 123d Street, on the west side of Manhattan, three and a half blocks from Teachers College. It comprises an elementary division (including kindergarten) and a high school division, and enrolls between 400 and 500 pupils a year. Its graduating class numbers between 35 and 50. The clientele of the school is drawn from the upper-middle-class, business-professional group with a strong interest in modern education.

The school is coeducational throughout, and has about an equal number of boys and girls throughout elementary and high school. The school building was completed in 1922, and is modern enough to allow a flexible and changing program. It has a swimming pool, two gymnasiums, two roof playgrounds, shop and studio equipment, a pottery room and kiln, and an annex with office space for research organizations. The library, in size and function, has been referred to as the "heart of the school."

Lincoln School does not invite large groups of students to



visit demonstration classes. The average number of visitors is between 3,000 and 4,000 a year. In recent years, with the lightening of the restrictions on visitation by Teachers College students, the number of such visitors has increased. The administration, however, discourages the presence of more than two or three visitors in a class at a given time. While the school is not a training center for teachers, a number of selected young people come to the school every year for observation, research, and teaching experience. During the past ten years Lincoln School has provided substantial experience for several hundred teachers-in-training, many of them at the graduate level.

### *Development of the Integrated Program*

The Lincoln School secondary program serves two great needs, preparation for democratic living and significant experimentation in curriculum making to meet the urgent needs of the adolescent years. What are the essential features of the new curriculum that the school has developed?

1. First and foremost, Lincoln School has dared to break through the traditional barriers which separate the special subjects, and to build an *integrated, functional* curriculum which draws on all fields for content.

2. This content is not haphazardly selected. It is based on a searching study of the needs and capacities of children and of the social necessities of our own culture and time.

3. The curriculum, although its objectives are set up in advance by teachers and pupils, is sufficiently flexible to be changed or modified as conditions demand.

4. There is large provision in the program for all kinds of creative and dramatic activity, as well as ample opportunity for the development of the physical activities so important to growing boys and girls.

The first comprehensive attempt to develop in Lincoln School an integrated course at the secondary school level goes back to the winter of 1927-1928, when a committee was appointed to investigate the problem of organizing a better-integrated program for the seventh grade of the Lincoln junior high school. During the school year of 1928-1929 plans for trying out one

center of integration were formulated, and in the fall of 1929 the plan was put into actual classroom practice. After three years of experimentation the account of the work was published by the three participating teachers as a volume of the Lincoln School Curriculum Studies.<sup>1</sup>

During 1929-1930 plans were drawn up for developing an eleventh grade course in mathematics which would draw extensively on the field of science, to be taught jointly by a teacher from each field. During 1932-1933 the high school program had three integrated courses: in the seventh grade a continuation of the study of Far Eastern cultures; in the eighth grade an integrated course comprising the fields of social studies, English, and art; and in the tenth grade, with teachers from these same areas, an integrated course in the development of Western culture. During 1933-1934 a general course was given in the senior class on the evolution of American culture in its political, social, economic, and humanistic aspects. By 1935 five of the six grades of the high school devoted approximately one-half of the students' time to studies and activities connected with the general course. In 1935-1936 the twelfth grade integrated course started with a study of the agencies of communication: newspaper, radio, periodicals, books, movies, stage, museums, galleries. The course also afforded opportunities for a broad and realistic approach to areas of special interest, particularly those of family life and problems in modern America. During 1936-1937 the integrated courses were made obligatory for all students in the junior and senior high school. In the year 1937-1938 new impetus and direction were given to the development of the integrated program by the inclusion of extensive travel study.

While the general courses change in content from year to year, a brief summary of the program for 1938-1939 will indicate their nature and direction of development.

*Grade VII.* Major emphasis is upon the problems that man faces in adjusting himself to his natural environment. This environment includes such factors as climate, natural resources,

<sup>1</sup> Sweeney, Barry, and Schoelkopf, *Western Youth Meets Eastern Culture*, Bureau of Publications, Teachers College, Columbia University, New York City, 1932.

native plant and animal life, land forms, soils, minerals, drainage and water features, and geographical locations. Beginning close at home with firsthand observations of relatively simple interactions between man and his environment, the study is extended from the home to the world community. Stress is placed upon the different cultural patterns that have evolved in various climatic regions. Content for the course is drawn from the fields of the social and natural sciences. English, mathematics, and health education contribute from time to time.

*Grade VIII.* The general pattern for understanding a culture as developed in the seventh grade is further elaborated in a detailed study of American life in its early agricultural stages. Factors which are not strictly environmental, such as customs and ideals, are considered. The study follows the transplanting of various European cultures to the New World, with their resulting transformations in a new environment; the colonial period in American history; early national development; and westward expansion. The emphasis is upon the cultural pattern of each period, with its implications in the world today. A study is made of the literature and arts of the people as well as their social and economic status. Content is drawn from social studies, English, and the arts.

*Grade IX.* "Living in a Machine Age." A study of the industrial revolution in America, with special emphasis on: (1) maintaining health and physical efficiency; (2) housing as related to health, family stability, and individual satisfaction and security; (3) nutrition and physical efficiency, and food problems and their effect on satisfying and gracious living.

*Grade X.* Beginning with the civilizations of the ancient Mediterranean world, the people and the ways of life that underlie Western civilization are examined. The emphasis is upon cultural development. Political and economic history are subordinated to tracing the development and persistence of ideas. The eastern Mediterranean expands into a world-wide stage, and the thoughts that were first uttered along the Nile or beside the Aegean millenniums ago are found to be important today. Content is drawn from the social studies, English, and art.

Science, modern languages, and music contribute from time to time.

*Grade XI.* The aim of the course is to see some of the crucial problems of the modern world in the light of man's experience with similar problems in the past. We approach these problems through studying the life of other times and places as revealed in the heritage of literature, thought, arts, and customs which has come down to us. Techniques of study, of consistent thinking, and of written and oral expression are stressed throughout. The tentative schedule of units for the year is as follows: (1) Collective Security, in the light of Greek experience; (2) Interracial and Intercultural Relations, in the light of Roman experience; (3) Social and Economic Democracy, in the light of medieval feudal society; (4) Changing Ways of Thinking, in the light of the Renaissance; (5) the Machine Age, in the light of the Industrial Revolution.

*Grade XII.* "Living in Contemporary America." The aspects of American life studied vary from year to year in the light of the needs of particular groups of students. Historical backgrounds, social and economic bases of American culture, and contemporary social problems are introduced through a study of newspapers, magazines, and the motion pictures, as well as through more formal readings in the literature of these areas. Knowledge of our present social life is gained by direct experiences—contacts with social agencies; trips to theatres, to art galleries, to concerts and operas; extended trips to Washington and, in the case of one class, a trip to the Tennessee Valley Authority project. The content of the course is drawn from any field that can make a contribution, but mainly from the social sciences, the arts, and English.

There is cumulative growth as the boys and girls progress through the high school. The work of the general courses in the earlier years deals with the areas of human experience that are best suited to these learners, such as home life, customs, adaptation to physical environment, adventure, faraway scenes, etc. As the children mature, they begin to consider the more complex political and economic questions of the culture. As a result of

several years' experience with the ninth grade general course, "Living in a Machine Age," the staff has decided to shift the study of this problem from the ninth grade to the eleventh grade, primarily because the tools necessary for an intelligent appraisal of the problem are not available to ninth grade students.

### *Problems of Multiple Teaching*

It has been our practice to use two or more teachers in each of the general courses, both in the planning and in classroom conduct. While we are convinced that the multiple teacher setup has brought increased opportunities for analyzing, relating, and synthesizing ideas and values and for the dramatization of situations, we have also learned that the cost of teaching on such a schedule is double or triple the cost of teaching under the old system. We are now at the point where we can make more economical use of teachers who have had from three to ten years of experience in multiple teaching, and thus we are able to reduce the cost of the general courses.

Ten years of planning and working together, of sharing success and disappointments, have brought us to the point where we begin to see the false line of distinction between special subject matter and integrated courses disappearing. This would not have been possible if, at the same time that we were making great efforts in the development of the general courses, there had not been also a thorough analysis and revision of the content and method of dealing with specialized areas at the secondary school level.

There is no doubt in our minds that the process of re-education of teachers in regard to these problems has been facilitated by an equally important change in the concept of administrative responsibilities. The enlarged scope of the general course has transferred many administrative responsibilities—such as guidance, scheduling, individual program making, and student activities—directly to the teaching group in classroom situations.

The time allotment for the general courses in the daily schedule has enabled us to expand our program of out-of-school education, and to prepare students for successful group and committee work and for the use of diverse materials of research; but it has

also brought a reduction in the number and time allotment of elective subjects to satisfy students' special interests or abilities.

The sharing of administrative responsibilities has had a wholesome effect on administrators and teaching staff alike. The facilitation of the educational process in a school like Lincoln has added new burdens and difficulties to the administrator's lot. Skill in handling different personalities for the best possible results, objectivity in controversial situations, wise promotion of experimentation under democratic conditions, and efficient business management are indispensable to the success of the school. Teachers, on the other hand, begin to understand that the realization of educational dreams and ideals must rest on a thoroughly cooperative attitude.

### *Community Study*

As early as 1925 it was common practice in Lincoln School to use museums, theatres, libraries, and exhibits. Outside speakers from many fields were being brought in to extend the work of the classroom, student government had been taken seriously as a part of democratic living and nonacademic community resources—such as the fire department, markets, churches, social work centers, and transportation and communication facilities—were frequently used as laboratories.

Now practically the entire high school division accepts the use of the community as part of the curriculum of the school. All-morning trips have become common; all-day trips are frequently planned. A week end proved necessary for senior high school students to study certain geological phenomena beyond Manhattan. The longer time proved equally valuable for glimpses of rural economy. Eight days at the height of a Congressional fight in Washington were barely enough to introduce juniors and seniors to certain aspects of our federal government. A week's trip proved an effective experience for 25 ninth graders in New England country life in the spring; eight days were used when 50 ninth graders participated in farm activities as the Berkshire farmers prepared for the winter.<sup>2</sup> Eleven days were

<sup>2</sup> See page 468.

spent by 50 twelfth graders in traveling 1,900 miles to study the socio-economic planning of the Tennessee Valley Authority and of certain government and cooperative enterprises in Georgia, North Carolina, and Maryland. About the same length of time permitted an industrial study in the bituminous coal fields of West Virginia. In all these recent enterprises as much participation as possible has been included with observation.

Evaluation instruments have been, and still are, as inadequate as the available techniques and materials for teaching, but they are improving together. One ten-day study trip for which especially careful evaluation was planned resulted in as much intellectual growth in certain important areas as is ordinarily recorded for two years. In all the Lincoln School study outside of classrooms, evidences of learning and genuine growth of personality have piled up to significant proportions.

### *Special Courses*

*Mathematics.* In the junior high school, confidence has grown in the desirability and feasibility of looking beyond the textbook for the content of mathematical ideas and processes. In connection with the pupil's experiences in science, shop, cooking, and social studies, a way is being found to develop the mathematical instruments which are essential to adequate management of experiences in these areas. It is still felt that there should be continuity or sequential development in the subject as the pupil proceeds through the grades, but sole reliance upon this traditional view is not enough. In each activity or experience of the pupil which contains a quantitative, spatial, or logical aspect, the teachers are disposed to see important mathematical subject matter.

Prior to the Eight-Year Study the mathematics courses in the high school followed closely the requirements of the College Entrance Examination Board with notable success, especially for students taking the three-year mathematics course. At the present time the curriculum in the tenth grade, which formerly was almost exclusively devoted to demonstrative geometry, now gives emphasis to Cartesian geometry also. The method of deduction

as used by Euclid is being replaced somewhat by the method of analysis. With the change in emphasis the traditional subject matter divisions are disappearing.

The attitude of the mathematics teachers toward instruction in logical thinking has changed. It is believed now that no one department should have to assume sole responsibility for the cultivation in children of logical thinking. Sensitivity to the validity of thinking should characterize the guidance of youth in all thinking experiences, regardless of the subject being studied.

*Science.* During 1928-1929 general science was offered in the seventh and eighth grades, and biology in the ninth grade. Advanced biology and chemistry enrolled members of all three classes of the senior high school, and a senior physics course was given. The next year, general science became a required subject in the seventh and eighth grades, and in 1930-1931 it replaced biology at the ninth grade level. Since that time, with the exception of one year, biology has been a senior high school subject.

Since 1932 several experiments have been carried on in an attempt to relate the science material to other fields of knowledge and, particularly in the seventh grade, to reduce the number of teacher contacts which the student at that level must make each day. Material from the fields of science, mathematics, and more recently the social studies has been integrated in the seventh grade, and in the ninth grade the material has been drawn from the fields of science, social studies, and health. At the eighth grade level it has been deemed best for a number of reasons to continue with a special science course whose main functions have been orientation and the development of a wide range of pupil interests.

In the teaching of biology there has been a marked development from the more conventional type of biology course toward a course which relates the subject matter to problems of human living. The inclusion of such large areas as genetics, nutrition, ecology, and certain phases of modern psychology indicate the functional orientation of the biology work in Lincoln School. The doctoral dissertation of the teacher of most of the biology classes in the period from 1932 onward, N. E. Bingham, describes



the teaching and the outcomes of a unit devoted to nutrition.<sup>3</sup> The study of rural life in the Berkshire Mountains<sup>4</sup> mentioned in the section on "Community Study" offered an important contribution to the integrated course in the ninth grade. Other areas which formed part of the science work were the machine, its operation and effect upon society; the provision of the essentials of life and escape from disease in the city; and the control of disease, based on intensive study of the work of the New York City Health Department.

From the early days of the school the work in physics and chemistry was made far more functional than the usual course at that period. However, experimentation with better syntheses of subject matter was desirable in this area also. The first of these—an attempt in 1929–1930 and 1930–1931 to teach, in the time allotted ordinarily to two subjects, the work ordinarily covered in plane geometry, second-year algebra, and physics—was not particularly successful and was not repeated. In 1933, through the enlistment of research workers under WPA grants, it was possible to start work on the development of a series of about 20 physical science units in the senior high school. These units and related activities cut across the conventional subject matter lines of physics and chemistry at many points. The basis for selection of these units for the two-year physical science course indicates a trend toward identifying the study of science with social problems instead of following the conventional pattern of introductory college courses.

*Modern Foreign Languages.* In the early years of Lincoln School, French was taught throughout the twelve grades, and German from the junior high school on. For a short time Spanish also was taught. With the development of the general courses at Lincoln, the available time for specialization by students in the high school became more and more limited. In 1940 French and German were offered at Lincoln School as electives—French in

<sup>3</sup> N. E. Bingham, *Teaching Nutrition in Biology Classes*, Bureau of Publications, Teachers College, Columbia University, New York City, 1939.

<sup>4</sup> N. E. Bingham, "The Rural Community as a Science Laboratory for City Children," *Scientific Monthly*, November, 1939, Vol. XLIX, pp. 409–416.

the junior and senior high school for a maximum of four years, German for two or three years.

Since language is a social and cultural phenomenon, the study of the culture of the people whose language was being studied was essential. History and geography, music and art, folkways and urban life, the story of industry and agriculture, became the sources from which materials were chosen for language instruction.

Evidence of the cumulative effect of the continued study of a foreign language is clear in the work which is carried on in French in the junior and senior classes. The theme is French civilization in all its aspects—history, literature, economic life, customs, music, and art. The work of the eleventh grade covers the period ending with the Revolution; the final year carries the study of French civilization to our day. Through occasional use of the lecture method, students become accustomed to hear sustained French discourse, and learn to take notes in French. Many projects in French, and about France, are carried on.

Student activities have also included studies in comparative literature, French, and English; a study of facts presented from the point of view of different nations; a study of newspaper articles reporting on the same event, in the American and French press; translations of poems; writing of original poems and stories; giving plays. Now that French newspapers are no longer easily available, the students read the items in the current press having to do with France and comment on the news in French. Much use is made of all the varied resources of the city. Trips are made to museums and exhibits, to see examples of French art and workmanship; French plays and movies are seen and reported upon.

*Art.* The arts are part of the basic program and are included in all general courses, thus making possible experiences in the arts for all children. Experience in working with children of secondary school age at Lincoln has shown that it is possible to get both interest and creative work from them, but that it requires a different technique from that usually employed and a redefinition of the values which are being sought.

In 1936 Lincoln School reported how opportunities were

afforded each pupil to speak in the universal language of the arts, and how the arts could function normally in the lives of the boys and girls. Elective courses were provided to satisfy those pupils who wanted more intensive work. The development of appreciation was based on the careful building of background and the "exposure" of children to many different aspects of the arts. The need was categorically denied for a "must" list of techniques in the arts that should be acquired by all children. Looking back from its present position, Lincoln School can clearly see that the growth, emphasis, and increasingly integrative character of the present art program in the high school reveal progress toward a new approach and a better definition of the values sought.

The present art program in Lincoln School is an experimental attempt:

1. To offer the entire program on a basis of free choice, thus preserving the free and sincere spirit of the artist.
2. To discover all points at which art activities are effectually and naturally integrated with other subject matter and educational activities.
3. To discover teaching techniques by which beginners at all ages may find immediate satisfaction in art activities and thus be motivated to continue their aesthetic growth and seek technical help as it is needed.
4. To learn how to create, under school conditions, an atmosphere which releases tensions and induces in children that relaxed but vital state in which the aesthetic experience comes into being and thrives.
5. To help children recover a healthy mental and emotional status whenever this has been disturbed or prevented by unfavorable cultural conditions.

The all-important thing in art is the learner's experience of nature both within himself and outside himself, and with the materials and media that attract him. The hardest part of the guiding process is for the teacher to keep sufficiently out of the way of the learner to give him a chance to deal with experiences in his own way. Art is an emotional experience reconstructed by the learner's own unique way of working.

It is hard for teachers to trust the learner and his experience enough. In art more than in any other development this distrust is a fatal mistake, because art expression is so intimately related to the individual's fundamental emotional life.

The reason art activity is so important in personality development is that it carries to the child his own measure of worth. He is not required to compete or to meet a given standard or to please the teacher. The essential requirement is that he be himself and thus come to respect and defend his own integrity.

*Music.* Besides a study of the world's best music, the high school music program has included the continuation of investigations and experiments in creative music begun in 1919 at the elementary level. The following are some of our experiments in creative work:

1. Original songs written and composed by individual students. Two school songs were favorites, and several assembly programs of original songs have been given by the choral groups.
2. Original instrumental compositions for various instruments.
3. Experiments in the construction of instruments of the violin family. Violins, violas, celli, and basses of Spanish cedar were made by members of a junior high school group, and played in ensemble quartet with music composed and arranged by the members of the group.
4. An exploratory course in music concerned with the evolution of instruments; experiments in devising original types of instruments; construction of wind, stringed, and percussion instruments; and the composition of various types of music for these instruments played individually or in groups.
5. The planning and writing of Christmas pageants, both secular and sacred, with the selection of suitable music played and sung by the entire school. A description of one of these has been published.
6. An original operetta, *The Charm*. The libretto was written by a student and the music by the senior class, in 1933.
7. A musical satire, *Progressive Education*, with lyrics by some fifteen students of the senior high school and music by

members of the choral group. The performance was repeated for the Parent-Teacher Association in 1936.

8. *Strawberry Jam*, an operetta with plot and lines written by a group of eleventh grade students; set to Gilbert and Sullivan music. Three performances were given in May, 1940.

Other music programs, operettas, and musical plays (not original) have been given, but the main object of music making and music study throughout the school has been greater appreciation and personal enjoyment of music itself by the students as amateur participants.

During recent years, various credit courses have been given in the senior high school in music history, music theory, and harmony. Private piano and violin lessons are offered during the school hours, as well as group work with orchestral instruments.

Special attention is given to the changing and immature voices of high school students. By careful study of each student's voice and adaptation of music to the changing voices, it is possible for a great many boys to sing in quartet or sextet combinations throughout the changing period.

Much of the great music of the world has been given without revision—music of Palestrina, Bach, sixteenth-century madrigalists, and other great composers. Folk songs of various countries and other music in lighter vein are also popular with the students, as well as music of the more serious type.

In the planning of the general courses, a music teacher is present to suggest the musical connections and implications that are appropriate in each topic under discussion—studies to be made, songs that belong to definite times and localities, music of different nations and periods, etc.

Although music has much to contribute as an integral part of the general courses, we feel that its greatest value is in the music itself, as a distinct art, serving in its own unique way the happiness and well-being of individuals and groups.

### *Health*

Health education is a responsibility of all teachers and administrative and service personnel in the school. Boys and girls

are taught to understand the functioning and care of the body, to practice healthful habits of living, to be intelligent about what constitutes good medical care, and to be conscious of the social responsibility needed in helping to raise the standards of community health. The personnel of the Health Department includes a pediatrician, a full-time public health nurse, and one or two assistants.

Specific ways in which the department contributes to the growth and development of the child are as follows:

1. Annual physical examinations, preferably with parents present.
2. Correction of remedial defects (special posture work, 1938-1940).
3. Cooperation with family physician.
4. Keeping of careful cumulative records of physical, emotional, and social health of child in home and school life.
5. Attempt to control communicable diseases through parent, child, and teacher cooperation.
6. Medical and nursing care of accidents and other emergency health conditions, and use of these immediate situations for health teaching and exercise of good judgment by children.
7. Health counseling.
8. Provision for special rest periods.
9. Participation in classroom teaching.
10. Participation in guidance conferences dealing with specific problem situations.

*Remedial Posture Work.* This work has been carried on as a special service by the Health Department to children who are in need of corrective work and exercises in posture. A specialist from Teachers College has carried on the work under the supervision and with the cooperation of the Health Department. The interest which the parents of the participating children have shown in this program has led to a request to use this activity from the preventive rather than the corrective point of view.

*Special Sex Education.* Because so many girls were taking more than the usual number of cuts from gym, and because many girls seemed neurotic about menstruation, for the past four years small

group conferences of seventh grade girls have been held at the beginning of each school year. These points are emphasized: the normalcy and the desirability of maturation, the difference in age levels of maturation, and care of oneself. Both physical education teachers and the Health Department have observed a more normal attitude in the girls toward menstruation since these conferences have been started. The parents also have commented about the helpfulness of the work.

*Individual Sex Education.* Some parents feel that they cannot be objective in talking to their daughters about maturation problems. In such cases the nurse uses the best opportunities to take up the problem with individual children.

*Emphasis upon Better Health Histories.* Developmental health histories for each child are obtained in narrative form from parents in parent-doctor or parent-nurse conferences. In the rare cases when the parent cannot come to school, a form is sent home to be filled in.

*Closer Relationship Between Cafeteria Nutritionist and Health Department.* The nutritionist reports children who are not taking balanced lunches. By conferences with these children many difficult and delicate health problems have been solved. This type of work is carried on chiefly with children who are new in the school and who have not had work in nutrition. Special care and attention are given to children who are on special diet for various reasons (diabetes, allergies, reducing, etc.). In the preparation of refreshments for school parties, the Health Department also cooperates with the student social committee.

### *Physical Education*

The physical education program is closely related to the school health program and offers many opportunities for health teaching. The playground and the gymnasium activities make it possible to note readily some physical, mental, and emotional deficiencies. The program centers in the interest of boys and girls in the recognized outdoor and indoor seasonal sports. Folk dancing and modern dance have a prominent place in the girls' activities, with opportunities for dance composition for the advanced groups. Social dancing is taught in the junior high school. Many

activities are shared by boys and girls: social dancing, tennis, badminton, roller skating, outings and winter sports trips, as well as occasional games or swimming parties. Besides the skills which may be used in later years, such as badminton, skating, volley ball, softball, tennis, and hiking, there are more vigorous team sports which have a special value for the student's development at certain age levels: soccer, football, basketball, field hockey, baseball, and track and field sports. The recreation program emphasizes:

1. Contributions to the social and play objectives of the school journey or field trip.
2. Ways and means of acquainting the children with the recreational opportunities of the community for trips, excursions, picnics, and special sports.
3. Opportunities to develop and practice the skills for a "good party."
4. Experiences in sharing the recreational facilities of the school with neighborhood groups and in "doing something" about the neighborhood problem of Lincoln School.

### Student Activities

Even a casual observer of life in the high school would note the remarkable extent to which students and teachers share in the direction of classroom activities and in the planning committees which determine to a large degree, especially in the general courses, the choice of subject matter, the media in which students want to work, the activities, and the order and method of procedure.

The Assembly Committee is responsible for the planning and management of the weekly assemblies. Last year the student body decided to make a year's trial of optional attendance at assemblies. After several surveys of the building during assembly time it was found that almost everyone went to assembly voluntarily. Those who were in the library or the study hall were occupied with work which had to be done at that time. No attendance was taken.

The school paper, *Highlights*, is published weekly. While it is primarily a newspaper, its editorial page is free for the discussion



of controversial topics concerning life in the school or outside. There is no faculty censorship or criticism before publication. The editors soon learn from their readers whether proofreading was not done carefully, or whether good taste was offended. Two years ago the faculty adviser suggested bimonthly supper meetings, to which prominent practicing journalists were invited for informal discussions. These meetings served a double purpose: they provided unusual opportunities for discussions and criticism of newspaper problems, but they also added a new feature to the social life of the school by bringing together the students who were inclined to stay away from dances or the more formal social affairs.

From time to time there have been other publications. The junior high school magazine, the *Lorette*, is a class project. The editorial staff is elected. All contributions are selected by group vote and edited by the elected staff.

Three members of each class and all the heads of the appointed or elected committees make up the Student Council. The president is elected by the entire student body of the high school and has to be a member of the senior class. The two faculty advisers of the Student Council are chosen by the students. The approval of the administration for the final selection is necessary, to prevent overloading of schedules for certain teachers, since the sponsorship of special activities has parity with regular classroom teaching. These faculty advisers, who have no vote in council meetings, have an excellent opportunity to become acquainted with a small group of students who show special interest and ability in community leadership. Since Lincoln School believes that the ways of democracy can only be learned through a co-operative interrelationship of all participants, the function of the faculty advisers to the Council is primarily one of sharpening the sensibilities of the students to the consequences of alternative choices, of encouragement to see through responsibilities which the students themselves have set, and of promoting the larger social interests of the entire school community.

One of the interesting aspects of curriculum development during the past eight years has been the decrease in the need for the clubs which play such an important part in the life of many

schools. The administration and faculty of the high school are ready to cooperate with any group of students desirous of organizing a club or special activities group. At present there are a Library Club, a Chess Club, a Swing Band—all well established and supported by a sufficiently large number of students. A Dramatics Club and a group of Puppeteers may soon be added to this list.

The Service League represents a trend in thinking, as well as a method of student organization for action on social needs. It has evolved from a volunteer group of older students calling themselves a "Charity Committee," which for many years was wholly acceptable, in implication as well as action, to students and teachers. In 1933 one very thoughtful committee added the study of social needs in the school and the neighborhood to the drives for Thanksgiving baskets, Christmas toys, and Red Cross membership. The development of the emerging organization received impetus and inspiration from the representatives of the various organizations which the school had supported in the past. On their own time and initiative the students visited settlement houses, community leaders, welfare organizations, and churches to discover new leads for "doing something different" from distributing largesse. The Charity Committee became a committee of the Student Council. Its representatives, two from each of the six high school classes, were chosen from students expressing interest and willingness to serve. On a similar basis one teacher was chosen as sponsor.

During the past five years the Service League meetings have rarely been attended by the twelve representatives alone; the responsibilities assumed in the course of a year engage two or three times that number, and almost everyone in the school participates in giving some materials, money, or service. Study of the neighborhood has resulted in action, with full cooperation of parents and of the administration. Upon assurance of adequate leadership, the playgrounds and gymnasium were opened to boys and girls of the neighborhood. It has brought active cooperation with the Negro church, the day nursery, and the police clubs—all of which are trying to improve community life near the school.

Surveys of student interests and sympathies have guided the preparation of special assemblies and of class studies to broaden the students' outlook. Needs in Spain and China, needs of European war sufferers, of American sharecroppers and underprivileged children, of poorly equipped schools and summer camps—all have had their place in open discussion and subsequent action.

Certain types of personal and social needs within the school are constantly met by the cooperation of the Service League. To all those who have watched the transformation of the Service League it represents an important route to action, without which educational experience is incomplete in Lincoln School's philosophy.

### *Parent-Teacher Activities*

Lincoln School believes strongly in a healthy parent organization, embracing as many of the parents as can be persuaded to take an active interest. It views the school and its associated homes as one community, no member of which can be overlooked. It sees the transition from home to school as constituting a definite emotional problem for young children, and the daily transitions from home to school and back as a continuing challenge to the growing adjusting powers of the pupils. As the functions of home, school, and other community agencies of a highly urbanized center show increasingly divergent trends and a tendency to become more specialized, many types of cooperation among these agencies must be cultivated in the interest of keeping the child's life wholesomely integrated. School people have to take special pains to get in touch with a reasonably balanced segment of the total human activity going on in the community.

In America the school belongs to the people, and each school to its neighborhood. In the democratic way of life we prefer to carry on our educational affairs by persuasion, not by regimentation, and we wish to promote communication at all points, so that our management may remain persuasive and educational rather than coercive and bureaucratic. The difficulty arises now in holding on to and reconstructing these school-home-community relationships in a scene where such relationships tend to become increasingly attenuated and uninfluential. During the period of adolescence and self-assertion, there is a special need for close

articulation between the school and the home. Discriminating judgment and action are necessary to maintain an underlying spirit of unity in dealing with the growing child, at the same time providing him with a practical experience of distinct separation, so that he may on new grounds do the things he could not do on the old, retrieve his past errors, and find new ways to assert himself. No school can do this job without continuous and organized interest on the part of its parents.

### *Developmental Records*

The parents of each entering student fill in a comprehensive Home Information blank for the school. The information given aids in the proper placement of the pupil and serves various guidance purposes for teachers and specialists.

In addition to the quarterly grades, every year each teacher in the high school is required to submit a summary statement of his impression of the pupils' records and achievement. Special problems, need for remedial work, and suggestions for better social adjustment are usually included by the teacher most closely in contact with the home life of the student. Since 1936 each teacher has been provided with small printed slips on which he records evidences of significant pieces of work, contributions to classroom discussions, or special contributions to the social life of the school. These slips are sent to the high school office and placed in the student's folder for summary in the annual report.

The psychologist's office has developed special Personality Inventory forms which, in addition to the questionnaires prepared by teachers in the integrated and science courses, aid in discovering the student's range of interests and power to interpret relevant data.

A careful record is kept of all interviews with students from the time of their admission to the school. When an adviser has a conference with a pupil dealing with a special problem, a summary of the interview is kept on file in the adviser's records.

Several experiments and a critical study of student problems were made during the past year. In the integrated course of the tenth grade the students, after a comprehensive study of utopias, submitted in original bindings their own proposals for a satisfactory utopia. These reports were read and criticized before

the class and also submitted to the parents and a number of faculty members of Teachers College for critical reading and comment. At a special meeting of the tenth grade parents at the end of the year, one of the Teachers College faculty members gave an interesting summary of his impressions of the utopias.

In the spring of 1939-1940 two floors of the school were given over to an exhibit of work by students of the elective arts classes—an exhibit in which the development of each student in the field of fine arts could be appraised through several stages.

In the "Human Relations" course of the twelfth grade, one of the projects at the end of the vocational study was the writing of an autobiography. To supply practice in proofreading techniques for the impending publication of the senior yearbook, these autobiographies had to be submitted in such form as to be acceptable to a printer for publication purposes. The autobiographies were read critically and commented upon by all the teachers involved in the planning and teaching of the senior integrated course. One of the professors in the guidance and personnel division of Teachers College asked to have this experiment in autobiography presented to her guidance classes as an illustration of fusion of the areas of English composition, psychology, and vocational studies.

Students' records of their own activities are available in many forms. The school newspaper, the literary magazines, the exhibits of work in the fine and industrial arts, leadership in athletic activities and student government, furnish many tangible evidences for critical appraisal of student activity. In the senior course on "Human Relations" in the past year, students were asked to develop their own report forms for the quarterly reports to the home. These reports were mimeographed, filled in by the students, and then read by the participating teachers in the course and returned to the students with marginal comment concerning their self-evaluation.

Occasionally, when special difficulties of adjustment arise, it is necessary to obtain the services of a specialist in analyzing a student's difficulties. Special reports are usually of a confidential nature and are made available only to the teachers and adviser specially concerned with the handling of the problem.

Parents are encouraged to comment on the report from the school and to record their observations or suggestions in letters to the school or in personal conferences with the adviser or principal. In the past three years the annual meetings with Dean and Mrs. Chamberlin reporting on the evaluation of the college success of our students have attracted wide interest among the parents whose children intended to enter college in the following year.

### *Lincoln School Students in College*

The most complete analytical information we possess about our students who went to college concerns the classes of 1936, 1937, and 1938. Summarizing the information given on Lincoln School students for these three classes, one may judge that the Lincoln School students generally restricted their interests to a somewhat narrower range of physical activities than the comparison students and that their strongest interests were in the more strongly intellectual and aesthetic areas. This fact is also borne out by a record of the radio programs to which they listened and by the concerts, lectures, and plays which they attended.

By and large, the observations of the college representatives and the college instructors of these students agreed that the majority of the Lincoln School students were alert, steady, mature, and possessed of some real intellectual "zip." In contrast to this majority group, there was a minority which was perhaps more colorful but less well balanced. In some but not all cases, these students had reached a more realistic and balanced point of view by the end of their sophomore year in college. Most of the Lincoln School students had decided upon the vocation which they hoped to enter. It was clear that the students were making an active effort to profit from their contacts with courses, books, and people and that they had eliminated some fields from consideration, or were seeking actual work experience to help them make an intelligent vocational decision. In general, it was believed that they showed more evidence of concern for the broader social implications of the jobs than is usually found among college sophomores. A strong and con-

sistent interest in contemporary affairs was evident in the group as a whole.

### *Summary*

Certain factors in the life of the school have been changing and developing over the last eight years. They reveal the progress of the school in:

1. Greatly increased attention to the emotional, social, and aesthetic needs of the individual.
2. A widening of the use of current resources and of the community through excursions and travel study, and the tendency to build the curriculum around experiences enriched in these ways.
3. The reconsideration of specialized subject matter areas in the secondary school, changes in content and in the method of presenting the elective subjects, and special attention to the problems of carrying through a demanding intellectual job.
4. The development and general installation of the general courses—cooperatively planned and taught, and forming the center of the curriculum.
5. Incorporation of the guidance functions of the school in the regular curriculum, and wider distribution of responsibilities among the staff.
6. A revision of scheduling in the direction of greater flexibility, illustrated in the willingness to change or omit a scheduled activity in order to take several periods, or a day or a week, to follow more fully the logic of a certain desirable experience, together with freedom of teachers to work out such flexibility cooperatively.
7. The shift in the concept of administrative direction and responsibility as seen in the resistance of the teachers to having any formulas whatever imposed upon them in advance, and in their tendency to insist that they are the ones to formulate as a group the philosophy of the school. This they are free to do, and both their thinking and their practice is carried on by means of frequent discussion, communication, and conference.

# MILTON ACADEMY

MILTON, MASSACHUSETTS



Every school which has been privileged to participate in the Eight-Year Study must be facing with real regret the end of the predetermined period of the experiment, yet at the same time acknowledging the conviction that this happy cooperation has launched something of great moment, something not likely to lose headway. If the essential project is too vital to be slowed down, why may not our cooperation reveal a comparable vitality? None of us doubts that this thought was in the minds of the initiators of this significant undertaking. To their vision we pay grateful tribute.

At the time of its enlistment in the Study, Milton asked, and received, permission to continue an already established policy of making each student's curriculum conform as closely as possible to a formula evolved for that individual student through progressive conferences between student and adviser, with the parents and the faculty at large as consultants but with emphasis on responsible planning by the student himself. There was nothing essentially new in this; it was a necessary part of an effort to apply President Lowell's principle that the student, not the course, is the teacher's primary concern. However, in the application of that principle it seemed highly desirable that the entire student body, and not merely a picked group, should benefit, and likewise that by the accomplishment of the whole student body, and not merely a picked group, the value of the work should be judged. This was no repudiation of the method of experimenting with picked groups, a method undoubtedly indispensable to the Eight-Year Study as a whole. At the outset it signified merely adherence to procedures already adopted, and yielding encouragement. It could well be rationalized as a convenient "control" in judging some of the results attained with picked groups, and on that ground it is now defended.



## Objectives

Realization of such a range of choice in the grouping and the sequences of courses necessarily involves such a flexible schedule as can be had only with a high ratio of teachers to students (ours is now 1 to 8) and a regular practice of dividing classes into small sections. These arrangements increase expense and it behooves every school adopting them to labor diligently for compensating efficiencies; to try to keep the number of courses offered within proper limits; to make sure that freedom in choosing is balanced by scrupulous maintenance of content and quality in every course, and that students of marked aptitudes who seek special opportunities shall give evidence of initiative and industry in the measure of their privileges.

It is obvious, too, that responsible planning by the student can never obviate, but rather must increasingly demand, the exercise of foresight and wise judgment by the teacher, and that the decisions which must be made in committee meetings are more numerous, more varied, and more vital than under regimes which do not encourage such planning. Any claim of progress toward the objectives here indicated is therefore inseparable from a warm testimony to the open-mindedness, cooperation, and stability of the teaching staff.

In my report dated January 24, 1934, I mentioned as then engaging our attention the following matters:

1. Abandonment of arbitrarily fixed formulas for the winning of the school diploma, with corresponding emphasis on faculty discretion in the award.
2. Establishment of honor sections, and recognition of "fields of concentration."
3. Encouragement of individual study programs, but with precautions against premature specialization.

It is scarcely necessary to point out the fact that the third item sums up the whole effort which I was then attempting to describe.

Repeated reference to studies, and study programs, may be misleading unless it is clearly understood that the bookish kind of study is by no means adaptable to the attainment of all the objectives. Thus the physical health of the community and of

each individual student, the social and economic welfare of neighboring groups of people, the principles and practices of democratic government, are compelling interests in a properly planned curriculum; and these things are ever-changing, ever-challenging aspects of the contemporary scene. To study them properly one must enter actively into the life of the community, and that school which endeavors to shelter its pupils, deluding them with the old nonsense about the "miniature world" of the campus, is shirking great duties. There is no American community where such practical contacts with real life cannot be had; but Milton is perhaps especially fortunate in being able to investigate at close range both town and city types of government, many kinds of industries, many welfare agencies, and many institutions of learning. Time must be allotted, probably in growing measure, to the cultivation of these contacts. If apportionments are well considered, the curtailment of the hours spent with books is more than offset by the increased assimilation of the harvest of reading. We have made a good deal of progress in the directions herein listed; we intend to make much more.

### *Scholastic Procedures*

Our scholastic procedures were described in 1936 as including:

1. Careful initial appraisal, and frequent reappraisal, of the developing aptitudes of each student.
2. Appropriate precautions against demanding of any student the performance of tasks for which the requisite aptitudes have not developed.
3. Appropriate precautions against holding any student back, on account of obsolete class-by-class schemes of regimentation, from training which he needs and for which he is prepared.
4. Opportunities for the slow student to review a difficult piece of work without feeling that he is penalized for his slowness.
5. Reasonable short cuts for the quick students.
6. Correlation of work in different departments of study, not by imposition of overloads such as are involved in the preparation of elaborate reports or summaries, but by

making sure that every newly acquired skill is put to use in timesaving ways.

7. Teaching by the "conference method," with students in small groups and with advisers or tutors who discuss the work with individuals.
8. Utter banishment of the old idea of the accumulation of "units of credit"—toward a diploma, or admission to college, or anything else.
9. Award of the diploma on the basis of the accomplishment of tasks planned ahead, year by year, for each individual student, with the student himself taking an active part in the planning—the whole scheme being related as closely as practicable to a composite curriculum-outline which it is one of the main duties of the faculty to revise intelligently from year to year; approval of the student's attainment, likewise, being granted or withheld by the faculty, after careful study of the whole record.

These principles are all in current practice, though the development has been uneven. Thus we have used the conference method for upwards of thirty-three years; we have employed modern methods of testing, with regularity, ever since the Educational Records Bureau was established; we have disregarded "units of credit" (except in correspondence with a few colleges which still place reliance upon them) for nineteen years; we have been awarding diplomas on the new basis for seven years; we still have far to go in that correlation of studies which we are attempting.

*Use of Examinations.* A further element in our practice, which may seem ultraconservative to some but which we believe to be in its actual functioning demonstrably advantageous, is the use of College Board Examinations in every appropriate case, even when the college concerned has shown a willingness to waive examination. We have not considered as "appropriate" the cases of candidates for colleges which ordinarily accept certificates, for to force examinations on such candidates would be to set up, arbitrarily, an unnecessary formality; we have simply avoided asking that students in good health, ready and willing to take the examinations in their stride, should be granted special exemp-

tions. Here we have really been pursuing an auxiliary experiment, which should be helpful in indicating the extent to which intensive preparation for examinations as ends in themselves is justifiable.

The most illuminating evidence on this problem comes from the records of our Harvard-Yale-Princeton group, using Plan B exclusively (every member of the senior class is held eligible for this plan):

1. During thirteen years, 1913-1925 inclusive, candidates in this group were given, during the senior year, fairly regular drill work on College Board Examination papers through the winter and spring terms. Of 214 candidates who took the final examinations, 210 were successful—or 98.1 per cent.

2. During eight years, 1926-1933 inclusive, the schedules of such drill work were shortened to about two-thirds of their former length, and the idea that examinations were not major crises, but tests to be taken in one's stride, was insistently set forth. Of 283 candidates taking the final examinations, 282 were successful—or 99.6 per cent.

3. During seven years, 1934-1940 inclusive, the schedules of practice examinations remained short, all discussions of examinations were abbreviated, and in many ways there were bold departures from syllabuses previously used; also, current history, music, the fine arts, and astronomy, in which no college entrance examinations could be had, decreased the attention bestowed on examination techniques by many of the students. Of a total of 303 candidates, 298 were successful—or 98.3 per cent.

An important aspect of the matter, which the figures do not register, is the great encouragement derived by students from the discovery that, if they pursue their work wholeheartedly and with zest, no conventional form of test which is at all applicable to the situation need give them alarm. Their peace of mind is thus enhanced, while their courage for the tackling of new problems is increased.

*Student Enrollment Policy.* A too highly selective recruiting policy could ruin the value of any such statistics as I have quoted. We have never been tempted to fall into that kind of error. The steady and faithful student of normal ability is the type for

which a school like Milton exists. We have never used competitive examinations. We do not recognize any scale of numerical ranking. Our quota of new students presents each year a distribution of aptitudes which may be regarded as a fair sampling from intelligent American families. We hold that such a student body is infinitely more interesting, and probably far more likely to make sound contributions to the democratic way of life, than a segregation of precocious youth.

One of our peculiarities is that we are by deliberate choice a top-heavy school; that is, each class in one of our upper divisions (the Boys' School or the Girls' School, each comprising grades VII to XII inclusive) grows by annual accretions, so that in the space of six years its size may be doubled. This state of things affords safeguards against smug complacency, and constantly brings in the leaven of new ideas; it also handicaps heavily any effort to devise and operate an ideally balanced curriculum. We must be alert at all times to meet, as best we may, the needs of conscientious students whose earlier studies place them somewhat out of line with the more conventional arrangements of courses. Thus we have had to cope with innumerable situations involving belated beginnings, differential rates of accomplishment, and sometimes extraordinary advancement in certain lines.

Belated beginnings sometimes bring great good luck; of that we are convinced. Perhaps the most generally acknowledged evidence of this is supplied by the study of geography, that immensely important subject which is too commonly left behind as the high school years are reached. Teachers whose experience goes back to the first decade of this century recall the thrilling developments in school geography which seemed to be opening up wide areas of useful knowledge to mature and enterprising minds—developments which were suddenly smothered and abandoned. During that brief era we saw the joy with which the older boys and girls tackled the simple beginnings of an investigation which they knew would lead them far. Their spirit was like that of the members of an exploring expedition, busied with early preparations which so relate themselves to great hopes that every detail is an adventure. This is not a sermon on geography, though in passing we would recall our determination to put that study

back into the exalted place which it deserves. This is rather an argument for the immense educational value of beginnings, particularly for older pupils who are often led to think that it is too late for them to begin anything new in school, and that in college the only respectable beginnings are in subjects not offered by secondary schools.

*Independent Study.* Encouragement in suitable cases of belated beginnings; encouragement, on general principles, of individual study programs; and the absolute necessity of finding those compensating efficiencies to which allusion has already been made—these considerations have combined to focus attention upon the values of independent study for pupils of high school age. When one has begun, and pursued, various courses under the daily oversight of teachers, there comes sooner or later the desire to make a start by one's self and to develop one's own plan. Many a hobby is so launched, and sometimes the choice of a lifework is so determined. It is almost a foregone conclusion that the independent start will be a quick start, wasting little time on marginal or nonessential topics. After a period of rapid acceleration, however, there will come a faltering of the motive power, when unforeseen complications beset the way. Then comes the chance which a wise teacher will seize, to give just the needed amount of help and again stand aside.

The needs of such guidance being recurrent, the task of the teacher thenceforth will be to afford essential help, and no more, until the mind of the student has begun to explore the broader relationships of the study. Then help may be more freely given, and often with a purpose which at an earlier stage would have been resented—as restrictive—the purpose of keeping the project on the right track. If the student is conscious of having found the track in the first place, such controls will usually be welcomed. Extension of reading is now in order, with an unhesitating call upon acquired facilities in reading foreign languages, but with great care that the early assignments in foreign language readings shall be simple, brief, and very definitely helpful. If the main study be itself a language, there is still value in assimilating comments upon it from a textbook written in another language, not one's own. These enterprises will take no school

by storm; but even a very few of them, scattered through a very large school, will exert a steadily pervasive influence whose effect will show in all studies, whether pursued independently by individuals or in classes by groups, and gradually the number of independent projects will increase.

*Tutorial Plan.* Scrupulous and ungrudging recognition of really vigorous independent work will operate to discredit false starts and superficial performances, which of course must be discredited unmistakably. Wisdom and patience, together with enthusiasm in large measure, must be contributed by the teachers; and inexperienced teachers must never assume full responsibility for this kind of guidance. Lacking a better name, we have called this technique the "Tutorial Plan"; and one good result has been the rapid attachment of new dignities to the title of "Tutor." In only a few cases thus far have we appointed special tutors who teach no regular classes. It is helpful to have a few such; but properly trained candidates for work of that sort are hard to find, and most often we shall find them among the more experienced members of our established teaching staffs, who will more readily accept split schedules than a complete transfer to the tutorial field of action.

Tutorial instruction need not, and should not, lead to a reckless branching out into new realms of study. It is one of a school's major duties to refrain from attempting either guidance or appraisal of projects for the oversight of which it cannot call upon a fittingly trained member of its staff. Tentative excursions into unfamiliar fields of reading may be attempted, often with profit, by a teacher and pupil collaborating as partners, but formal recognition of such ventures as the equivalents of standard courses is attended by great risk.

At Milton we have recognized tutorial equivalents of regular courses mainly in the fields of mathematics, science, and music. Current history, an optional minor course which is in great demand and which affords unlimited chances for individual assignments of the reading-and-report type, might quickly claim a place in the list if we were not firmly insistent on a class organization to foster constant round table discussion. This point suggests a just reason for restraint which might apply in other situations.

Literature and the fine arts present many opportunities for the tutorial technique, and their claims would develop more rapidly if we had more available teachers.

Our teaching staff cannot, however, be indefinitely expanded, and we shall be shortsighted if we fail to heed the many warnings which bid us make plans for rigid economies in the possible lean years ahead. Facing such warnings, we must constantly intensify our search for new efficiencies. In the Tutorial Plan, properly administered, we believe we have found one. Its increasing application—increasing no farther in any year, however, than sound economies of organization may warrant—should steadily carry forward the demonstration of the value to every student of the self-starting power and the increased sense of responsibility which it evokes. If the time should come—and why should it be long delayed?—when the average student of high school age should be “on his own” in one-quarter of his scheduled work, the savings in time and expense would be enormous, and the benefits of the practice would ramify indefinitely. Academic standards would be strengthened, not weakened.

*Preparation for Life.* It is to be remembered in this connection that while academic standards are precious, and must be held high, academic “requirements” as set forth in school and college catalogues are often fragile creations of trivial importance. We shall do well to insist that the quality of work be kept high in every course; we shall be very foolish if we require every student of a given age level, or even of a given intelligence quotient, to take the same number of courses in a year, or to spend the same number of years in school. College admission officers, in general, have in recent years recognized the normal range of variation in scholastic aptitudes much more clearly than school pronouncements have made the public aware. It is time for increased emphasis upon an enlightened sense of responsibility as the great objective of secondary education. It is that sense, more than anything else, which guides a student through school, into college, through college, and onward into a successful lifework. Often in trying to hasten the development of that sense in Milton students, we have found advantage in granting leaves of absence of a half year or a year, sometimes for work in a factory or office,



sometimes for hard but diversified farm labor, sometimes for a contrasting experience in some distant school with a sharply different environment. On a lesser scale, and more continuously, we are trying to cultivate the sense of responsibility by the elimination of lengthy codes of "school rules," and frank reliance upon the honest exercise of discretion. Only by actual practice in the use of freedom can the use of freedom be learned.

### *Evaluation*

Character appraisals by teachers are potent instruments for good or harm. Perhaps our greatest effort of all has been directed toward the attainment throughout the faculty of the habit of estimating school relationships and influences with calmness and justice. Some progress has been made; it is scarcely for us to attempt to say how much, but it has been steady and it has brought increasing enlightenment. It would be rash for us to look askance upon materials and methods which, in the hands of others, have proved their constructive value. In our own hands, indeed, the many excellent printed forms now available for recording traits and charting the stability or instability of a pupil's conduct, have yielded essential guidance for discussion. With enthusiasm and deep gratitude we acknowledge our indebtedness to the investigators who have furnished such aid. Nevertheless, in all candor and humility, we must record ourselves as thus far unwilling to make more than occasional use of those devices. We do not attempt to diagram human relationships. When we report to a college upon the attributes of a candidate, we prefer the essay type of report—following no predetermined model, attempting no quantitative measures, weighed in the balance with no rival document—as affording the freest range of expression to just and sympathetic friendship. In order that such a type of friendship may prevail in the school, we insist at all times that the formula quoted at the beginning of this statement shall be our guide: that the student, and not the course, shall be our chief concern.

### *Student Activities*

Increase of individual initiative and responsibility in studies will inevitably affect the trends of discussion in meetings of

student government boards, and in extracurricular interests. At Milton the Student Council of the Boys' School and the Self-Government Association of the Girls' School, with memberships wholly elected by their respective constituencies, have for many years been enlarging their activities in connection with lectures and conferences on public affairs. Not only have they organized many such occasions within the academy, but they have also sent representatives to gatherings at other schools with increasing frequency. Meanwhile deliberations on the maintenance of order and dignity in the daily round have become markedly less frequent than in former years, because less necessary. The entire student body here, as in many other schools, has a deep and steadily developing interest in civic affairs, international relations, and the social problems of American communities. The evolution of that interest has been rapid and well sustained and probably there is more significance in this advance than can be explained merely by adducing testimony to the excellence of the instruction in these fields. At present there is a strong upsurge of enthusiasm for debating in the Boys' School, and for the writing of plays in the Girls' School—facts which seem in keeping with the general picture.

Such group interests as those just mentioned make for better and better adjustments between different age levels, and for a more mature and civilized outlook, even by fairly young children; and they certainly impose no new restraints. The example of the older pupils works steadily upon the minds of the younger ones, giving stimulus and guidance to the orderly growth of orderly activities. If the changes noted have been brought about largely, as we believe, by the discarding of old practices savoring of pedantry and regimentation, it is equally to be observed that they steer us toward a new and finer integration of effort, a new solidarity of purpose; a perception that personal achievement appears at its best in the service of friendship and democracy.

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# NEW TRIER TOWNSHIP HIGH SCHOOL

WINNETKA, ILLINOIS

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New Trier is the four-year public high school serving the villages of Glencoe, Kenilworth, Wilmette, and Winnetka, and such unincorporated areas as lie in the township of New Trier, Cook County, Illinois.

Enrollment was approximately 2,650 in 1940. Forty years ago when New Trier first opened its doors, its enrollment was 83; and then it had 7 teachers. Now it has 140 teachers. There is comparatively little teacher turnover, teachers tending to remain once they are on the faculty. New teachers are constantly being added, however, because of the growth of the school. For many years the growth has averaged about 100 pupils per year. The rate of increase has dropped in the last three years, but the school population is still increasing. The holding power of the school is high. Moreover, more pupils enter any given class throughout its four years than leave, so that a class graduates in larger numbers than it has when it enters the school.

The high school property covers 30 acres. This includes two large athletic fields. The original building still stands and, as the school has grown, additional wings and buildings have been added, so that the school now resembles a small college campus. In addition to the usual offices, classrooms, and laboratories, there are unusual facilities for certain pursuits such as home economics and the arts; there is a science and a social science museum, a special radio room for construction purposes, a darkroom for the photography club. Industrial arts are taught in well-equipped shops in a new wing.

A separate building for physical education houses two large and three small gymnasiums, three clubrooms, an indoor track, a rifle range, and a laundry. This building is also equipped with movable seats for large assemblies and public performances, and will accommodate 4,000 persons.

In an adjoining building there is a natatorium with a swimming

pool seventy feet long and sixty feet wide, with facilities for accommodating 1,200 spectators. A small auditorium seats 1,000 persons. It, with the dining halls, occupies another wing of the building. The library's 13,791 volumes and 6,000 pamphlets are located in still another wing. Music, dramatics, and voice work of all kinds are featured, and special rooms are provided for them.

New Trier is a tax-supported public high school. Its budget in 1940-1941 was \$742,560. Of this, \$168,745 is for building maintenance and \$573,815 for educational purposes. The approximate value of buildings and grounds is \$3,000,000. The approximate cost of educating a student at New Trier for four years is \$1,000, or \$250 a year.

The school serves a suburban area, a large number of the fathers being men whose work is in Chicago. There are no industries in the township. It is not surprising that, being drawn from a residential suburb, more than two-thirds of New Trier's graduates enter college or continue their studies in vocational or other schools. Members of the class of 1939 entered 140 higher institutions.

In spite of the large proportion of New Trier graduates who go to college, we also have a group of "special" students. In September, 1940, there were 231 of these special adjustment cases in the four grades; 81 were freshmen and 34 seniors. Since 1931 a modified curriculum with extra guidance has been offered these students, yet they are in no way labeled—the distinction being in the understanding and planning of the teachers and counselors who are working with them.

Pupils who have made poor records in grammar school, have failed to complete eighth grade requirements, and have percentile ranking of less than 10 on the Otis Classification Tests given to some 800 eighth graders in the township are included in this group. However, in every case the final recommendation comes to the high school from the elementary schools. The high school cooperates with the elementary schools by taking these boys and girls regardless of academic achievement. The pupils, entering a new situation in high school, often respond to the chance to turn over a new leaf. The work is adapted to their ability and they tend to succeed in their studies and their social adjustments.

In order to keep close personal contacts and relationships in our large school, we maintain a carefully organized adviser program headed by 8 adviser chairmen and 2 full-time deans, who handle the administrative work. Every pupil upon entering is assigned to an adviser with whom he remains for four years. All boys have men advisers and all girls have women advisers. The adviser meets with his group of advisees for a 20-minute period every day, and arranges special appointments for those needing individual attention. The adviser calls at every home early in the students' freshman year and keeps in close contact thereafter. He acts *in loco parentis* in the school, and everything affecting a child's school life is cleared through the adviser. Our adviser system has been in existence for many years, and it is such an integral part of our life that our participation in the Eight-Year Study has necessarily been influenced by it.

The members of the experimental group are not finally selected until the end of the freshman year. At the beginning of the Study, entering freshmen were placed in the group on the recommendation of the grade schools. Now a group called the "V group" is selected by tests and on the basis of elementary records. At the end of the freshman year, those who seem to profit by the V group are invited to continue as members of the Study.

### *Aims and Methods*

In attempting to put into actual practice the theory of the curriculum as a training ground for democratic living, no upsetting, revolutionary method was pursued; but the curriculum was modified, chiefly by breaking down departmental walls, to emphasize democratic living in theory and in practice. On the other hand, the importance of scholarship and academic subjects was never ignored.

The central theme of democratic living has served to unify the entire high school course. Into that more general purpose, New Trier's specific objective—the development of (1) creative abilities, (2) logical thinking, (3) a scientific point of view, (4) the habit of suspending judgment, and (5) an enriched background—fits very naturally.

Vocational guidance, character education, and safety education

have been carried through the four years of the high school. In this work the adviser system plays an important part.

### Unity

When the Study started, our faculty accepted the challenge that more must be done to bring unity into the school program and it has consistently worked toward this end ever since. We have attempted to achieve more unity throughout the high school course by studying the pupils' development from year to year and creating a curriculum which grows throughout the four years. We have tried to create unity within any given year by:

1. Cooperation on the part of teachers having the same students, so that they would be working for common objectives and so that the students would realize that knowledge from many sources could be applied to the solution of common problems. We have sought to achieve this unity by:
  - a. Having teachers of different subjects work with the same class.
  - b. Reorganizing a course in one department and extending its effects to other departments.
  - c. Cooperation of all teachers having the same students.
  - d. Cooperation of special teachers and regular curriculum teachers.
2. Rethinking the work in a specific course.

The following are examples of our four methods of achieving unity by cooperation: (1) ninth grade English-science course, (2) tenth grade English course, (3) all eleventh grade courses, (4) language, literature, history, and other courses integrated with art and music. Our attempt to create unity by rethinking the work in a specific course is evidenced by our new course in freshman English.

*Unified English-Science Course.*<sup>1</sup> The English-science classes in the freshman year were designed:

1. To save time and energy by using common subject matter in both courses.
2. To apply English techniques and skills directly to the study of science.

<sup>1</sup> Report of an English teacher and a science teacher.

3. To experiment with pupil-teacher planning and group activity methods of learning.
4. To give a survey type of course in science with emphasis on generalizations, understandings, attitudes, and appreciations as the important outcomes, instead of emphasizing factual knowledge.

The facilities provided a suite of rooms, including a lecture room, a laboratory, a storeroom, and a greenhouse. Moving pictures and supplies for all kinds of experimentation and demonstration were readily available. A library of several hundred books was kept in the classroom. It contained both scientific reference and free reading books. Two teachers, one from the English Department and one from the Science Department, were responsible for these classes.

Ten periods were set aside for each class, three under the English teacher and four under the science teacher. The three remaining periods were used for study, individual teacher-pupil conferences, and student committee work.

An attempt was made to follow (and instill) democratic procedures. Student officers were elected and were responsible for the operation of class activities. Pupil-teacher planning was utilized in setting up the subject matter to be studied and the methods to be followed. As a result, problems from the following areas were selected for the first semester: astronomy, weather, chemistry, physics, and geology. For the second semester, genetics, physiology, microscopic life, and man's fight against disease were chosen.

Activities in English were taken up at such times as they could be used directly in studying science materials. For example, a unit on library skills preceded actual scientific research by the students. Methods of note taking and outlining were studied when students needed to gather materials for use in committee outlines, reports, and demonstrations. Imaginative themes and other reports written on science subjects were used as English compositions. A folder was provided for each student in which all his written work was filed. The English teacher held individual conferences to examine the material and to plan reading programs. Emphasis was placed on small group (committees)

and individual work. No attempt was made to correlate all the work. For example, the students asked for a grammar review which had nothing to do with science per se. Reading was not limited to the field of science; rather, the student was encouraged to read broadly.

It was found that considerable saving in time and energy was effected by using common subject matter. We have a growing conviction that this method can become more valuable to the student and should be continued. We feel that it is possible to apply English techniques and skills in other fields and that the students are more successful when there is such direct application. We realize that herein lies the biggest problem—how to work out in detail a closer correlation of the two subjects. We can foresee many more possibilities than we have thus far been able to accomplish.

We are convinced that the pupil-teacher planning method and small group activity have been effective and have provided greater motivation. We are confident that the outcomes in understandings, attitudes, appreciations, and skill in making generalizations have been significant.

All of this has been revealed in three ways: (1) by increased sensitivity to correctness of expression; (2) by increased interest in science, as shown by the fact that more of these students elected science in their second year than has ever been the case before; (3) growth in cooperative productive enterprise.

*Cooperative English Course.*<sup>2</sup> This committee has resulted from our dissatisfaction with the content of our sophomore English course. At the same time, the administration has indicated an interest in the peculiar problem of the sophomore in high school, has expressed the hope that this committee would take these problems into consideration, and has pointed out:

1. The sophomore year is a difficult year for the pupil. The newness of high school life has worn off, but he is not yet accepted as an upper classman. It is a "betwixt-and-between" year.
2. A questionnaire given to sophomores some years ago on sophomore interests showed that their interests were pre-

<sup>2</sup> Report of a committee of English teachers.



dominantly social. They were keenly interested in people—in other boys, in other girls, and in themselves in their relations to other people.

3. Our sophomores are studying: (a) geometry—a valuable and essential subject but, unless handled intelligently, not well adapted to the sophomore; (b) a beginning modern foreign language, which in limited high school time must stress grammar and vocabulary in the sophomore year; (c) English—the sophomore is studying works of definite literary value which an educated person should know, but which at present seem to do little to fit in with the special needs of a growing adolescent on the sophomore level; (d) biology, which may be taught functionally, but which, if taught with emphasis on structure, is formal and lifeless for pupils at this age; (e) if he has elected social science, he is probably studying medieval history; (f) if he has elected industrial arts, fine arts, home economics, commercial subjects, or geography, he is probably finding some material vital to his needs now. It does not seem that the sophomore year is a year in which pupils are strikingly interested in abstract ideas.

The committee has made a careful study of the interests and activities of the high school sophomore and has attempted to find literature that would have a real relation to his everyday experiences and at the same time would be of high literary quality. We do not wish to sacrifice the student's opportunity of coming into contact with the best in literature suitable to his age and ability.

We used Donald MacLean's book *Knowing Yourself and Others* as a basic text. The purpose was twofold: (1) to help the student realize that the problems of his everyday life are the same problems that good authors discuss in their works, and that through the study of literature a student may come to understand himself, his problems and their intelligent solution; (2) to help the student discover that he may read good literature more intelligently by interpreting the problems of the characters through the light of his own experience.

The committee realized that there is nothing new or startling about this approach and that good teachers often use it. They

feel, however, that by the use of *Knowing Yourself and Others* attention will be more definitely focused on this type of interpretation and the student will find the correlation between literary and personal experiences easier to make.

In the unit on the short story, we recommend class discussions and class activities designed to make the correlation between the stories and the section in *Knowing Yourself and Others* concerning the human desire for recognition. In the unit on the novel, we recommend *Arrowsmith* and *The Yearling*. Here the correlation can be made between the second section of *Knowing Yourself and Others*, which is concerned with the need for response or affection. However, the established classics, such as *A Tale of Two Cities* and *Silas Marner*, as well as other literary classics of previous centuries, can be used for this purpose.

Those members of the committee who have already tried this course are enthusiastic about what it has accomplished. The following points are made: (1) students feel that this course has a definite relation to their everyday life and that it has been personally valuable to them, both in their understanding and appreciation of literature and in their attitude toward themselves and one another; (2) this approach to literature motivates considerable discussion and valuable critical thinking; (3) the use of the book *Knowing Yourself and Others*, in connection with short stories, novels, and dramas, has proved valuable. The course can be a success only if those persons who teach it are enthusiastic about the idea it embodies and are willing to help the course grow by adding to it their ideas and experience.

This same need, which was recognized by the English teachers, is being recognized by other teachers who deal with sophomores. Whatever subject is being studied, the idea of "knowing yourself and others" can be made a unifying principle.

*Correlated Eleventh Grade Courses.*<sup>3</sup> We teachers who have junior experimental students in our classes are naturally concerned with the agitation over "correlation" and "integration" and similar ideas or expressions. In response to the stimulus from such catch phrases, we have developed various concepts and schemes

<sup>3</sup> Bulletin issued by the chairmen of the eleventh grade teachers' committee.

of instruction supposedly in harmony with these saving words. Often, however, we have felt that such terms are merely expressions invented for our increasing befuddlement.

What we need to do is to sharpen our ideas of what "cooperation" implies for us, particularly in the experimental work of the junior year. Then we can meet from time to time and discuss the progress of our pupils in specific terms. Then we shall be more keenly aware of what we are all trying to do with our charges.

Cooperation (or correlation or integration) does not necessarily imply fusion of courses. It does not require dovetailing of materials from various subject matter fields. It does not obligate us to emphasize the relations between history and English, between science and mathematics, between art and literature, or between any other parts of the curriculum. Such devices are only means to ends, and much more fundamental objectives demand our attention.

A little thought reveals that, no matter what different subjects we are teaching, we are all aiming at the same few things. We are only working at different aspects of the same processes. For example, the science teachers speak of "the scientific method" or "the scientific temper"; the mathematics teachers speak of "logical thinking" or "the nature of proof"; the history teachers speak of "historical-mindedness" or "ability to analyze propaganda"; and the English teachers call it "critical thinking." If we can maintain a keen awareness of such interrelations, we can understand one another's efforts and work together. This is the foundation for genuine correlation, coordination, or whatever we wish to call it. For convenience, let us use the plain word "cooperation."

What we need to keep in mind is that we are all working to develop in our students certain abilities, habits, skills, interests, and appreciations. These are not intangible or mysterious. They have been clearly stated in bulletins, articles, and books, and they have been ingeniously explained and tested in the instruments and interpretations invented by the Evaluation Staff. Our job is to think first and mainly of these objectives, and then to judge whether our instructional devices are developing in our students the necessary qualities.

Here is a list of objectives toward which all of us should be working. It was issued a year ago, but its newness is perennial.

1. Aspects of thinking:
  - a. Ability to apply facts and principles.
  - b. Nature of proof or critical appraisal of evidence.
2. Work habits and study skills:
  - a. Better reading habits.
  - b. Better use of library facilities.
  - c. Ability to use sources of information.
  - d. Ability to use laboratory techniques.
  - e. Ordinary competence in fundamental skills.
3. Development of good social attitudes.
4. Development of wide interests (reading, the arts, music, etc.).
5. Development of appreciations.
6. Development of social sensitivity.
7. Ability to make good social adjustments. (This involves emotional maturity, and satisfactory face-to-face relationships.)
8. Creativeness.
9. Development of a personal philosophy of life on the part of students.
10. Physical and mental health.
11. Functional information.

It would be wise for every teacher to check his own work against these objectives and see to which (if any) he is contributing and what he could do to contribute more fully.

*Cooperation from Art and Music Teachers.* Perhaps the most outstanding form of cooperation is evidenced by the presence of art and music teachers who are unassigned to regular duties and can be called into language classes, history classes, or literature classes whenever they can be of assistance. This practice has been one of the most valuable results of our participation in the Eight-Year Plan. We feel that music and art have a legitimate place in the teaching of literature, languages, and history, and that our plan has given the student not only new approaches to these curricular subjects and enriched concepts of them, but also new understandings of the arts.

*Art Enriching All Experience*

We have not been interested in merely adding more art courses to the curriculum, but have desired to see art play a more integral part in the life of the school as it now exists. We have thought of art in three ways. First, there are the producers, the children who have artistic ability and whom we teach to draw and paint and model. For these children we set up definite courses. Second, there is the larger number of students who spend no or little time painting or drawing or creating, but whose interest we engage in the appreciation and evaluation of what other people have done. Recently this group has been called the "consumer group." The first group is cared for in practically all schools, the second group in most schools. But there is a third approach, which until recently has been neglected and which we consider the most important of all. This concerns all the students in school, and involves considering art as something which heightens every pupil's understanding and appreciation of life; which helps to interpret life; which cannot be set aside in a room at certain hours, but must be part of the warp and woof of education itself.

We were working toward this some years ago when art appreciation came into the curriculum, and in many schools was required. In our school it was required of every sophomore, the course consisting of lectures on painting, sculpture, and architecture. At the time this was a good idea, and was better than having no contact with art at all. But it can be an artificial experience which perhaps will defeat its own end with many pupils.

To meet the needs of the first group, New Trier High School has courses in creative drawing and painting, applied arts, stagecraft, with studios for metal hammering and clay modeling and a theatre arts laboratory for stage construction. Art in the schools often too narrowly means painting and drawing. We have an art club, with an extracurricular sketch class which meets once a week and offers an opportunity to those students who cannot fit art courses into their regular school program. We cooperate with the community in such projects as making posters for the Community Chest, for the Art League, and for the dramatic groups up and down the North Shore.

In order that every child shall have had at least an art contact, we require every sophomore to take a course meeting one day a week in which he undertakes a variety of activities: working with his hands, seeing new films, hearing a few talks on art principles, or doing some painting, creative drawing, and designing. We are convinced that the interest built up in this way often leads pupils to choose regular art courses; but for the majority of students art must be something to understand and appreciate and evaluate, not to produce, and it has been gratifying to see what has been accomplished in our school through certain devices introduced by the head of our Art Department.

We are fortunate in having a showcase in our main hall in which exhibits can be placed, and these exhibits are changed about every two weeks. Because of this variety and novelty, the exhibits attract a great deal of attention from our students, and it is surprising how stimulating they have proved to the student body and to the public at large.

*How Art Teachers Cooperate.* The services rendered by the Art Department tend to set standards for students and give them an idea of what art can contribute to life. Our Art Department has cooperated with various departments in painting murals. For instance, history classes planned the subjects and the Art Department executed the murals for our historical museum. The same kind of cooperation is evidenced by murals in the Athletic Department and in the Science Department, and in a room used by English classes for vocational reading. Our stagecraft and theatre arts work originated in our Art Department. These have developed into a rather strong separate department in which staging is planned for all our school plays, worked out on model stages, and then transferred to the auditorium stage. In an advanced theatre arts class, in addition to the construction, the theories of decoration, color properties and values, and interior decoration all come in for consideration. At our Christmas concert the work of the Art Department in arranging the setting is an invaluable part of the production.

*The New Meaning of Art in Our School.* Now these activities do, of course, include art as a way of life, but we are interested in branching out beyond them and seeing art introduced as an

integral part of the classroom work. To accomplish this we have one teacher who has most of his time free for what we at present call by the awkward name of "art integration." For example, an ancient history class, when studying the history of Greece, will call in an art teacher to discuss Greek architecture with them, or they will ask a music teacher to show the development of music in classical times. This procedure is followed through various periods; thus, instead of thinking of art as something separate, students will, by seeing it carried through all history classes, come to think of it as an integral part of the life of every period, and will sense the interplay between the arts and the social development of the periods considered. They will see art as an expression of the times and as an influence on the times. Language classes also call on the art teacher, so that French classes, German classes, and Spanish classes realize the part that art has played in the countries whose languages they are studying. The same is true in English literature classes.

Some of the contributions the art teacher has made in the past year are:

1. *First-year Latin Classes.* Lectures on the monuments of Rome and building practices of the Romans—illustrated with slides.
2. *English Classes.* Modeling characters of a story one class was reading, also trying to show by drawings the spirit of a story the students had read. To a Shakespeare class, a talk on the stage and the architecture of England. To a literature class, a talk on Romantic and Classic movements in art in relation to similar movements in literature.
3. *German Classes.* Talks on Dürer and Holbein, about whom the classes were reading; also a talk on the baroque architecture of Germany.
4. *Spanish Classes.* Several talks on the Prado museum and on Goya, Velasquez, El Greco, etc., to enrich the textbook treatment of these subjects. To another class, a talk on the Alhambra and the architecture of Spain.
5. *French Classes.* A discussion of French architecture, when the text mentioned châteaux and cathedrals; also talks on

French painting in connection with definite parts of the regular classwork.

6. *Mathematics Classes.* Work with geometry classes on the geometric designs of Gothic stained-glass windows; also the art teacher explained abstract geometric forms, and the students made original designs using these.
7. *Shopwork.* In an ironworking class, a discussion on the proper use of materials, in particular iron—what could and should be done with it and still have it remain iron in form and spirit?
8. *Social Studies Classes.* First year, talks on the ancient arts of Greece, Egypt, etc., up to Gothic times; second year, talks on the Renaissance and later periods.
9. *American History Classes.* Talks on colonial architecture—for example, Williamsburg—and on the American painters.

Possibilities in this direction seem to be limitless. Industrial arts, home economics, mathematics, and science could be brought into this picture. We believe that in the future art will be an integral, functional part of every school activity.

### *The New Significance of Music in Our School*

Music as well as art has assumed a new position at New Trier since our participation in the Eight-Year Study. In addition to the regular teachers in the Music Department, we have made available a special teacher, unassigned to any regular classes of her own, who works with groups in history, foreign language, literature, or even science; in fact, wherever the area being studied will profit by such cooperation. This procedure was begun seven years ago with the experimental group only, but has proved so valuable that it has been extended to the entire school. The history classes study the part that music has played in a given historical period or that it plays in the modern world, and the influence of the social conditions of the period on this music. The foreign language and English classes benefit in much the same way, while the science classes learn how the principles of sound production are carried out in the construction of musical instruments.



*The Integration of Music and Social Science.* In the history and music work, the music integration course of the Eight-Year Study group is a four-year sequence as follows:

*Freshman Year* (ancient history). Primitive and ancient music and instruments.

*Sophomore Year* (social science and English). The Elizabethan period; classical and modern composers.

*Junior Year* (American history). American music.

*Senior Year* (current history). Modern music and instruments. No textbooks are used, but the materials which the school has available for the music integration units comprise a collection of over 600 recordings presented by the Carnegie Corporation; a music integration museum of primitive and ancient musical instruments; a social science museum devoted to Indian artifacts, which include Aztec, Mayan, and Incan rattles, flutes, and whistles; and a project shop, separate from the main shops, in which groups may work out special integration projects.

A brief description of the music integration work given in the first semester of the freshman year of history will serve to illustrate the general procedure. The approach in this course is the student's own community, with a branching out from that to the world-at-large. Hence the social science museum, which is a part of the student's own world at New Trier and which represents a primitive period in the music development of the Americas, is used as the point of departure. Here the student sees how primitive man, in his desire to imitate bird or animal calls, constructed ocarinas and other whistles imitating the shape and sound of these birds or animals. He learns how rattles represent a culture element with a much larger meaning than any attributed to instruments of today, through their important use in tribal ceremony. Some prehistoric rhinoceros bones sent to New Trier by the University of Nebraska, which is carrying on extensive excavations in this country, serve as examples of material used by primitive man for rhythm devices.

The freshman study is then carried into the somewhat larger "community" sphere by means of the music integration museum collection, so that the music and instruments of Indian tribes in America, Alaska, and Canada are presented. This unit also in-

cludes the study of some of the present-day Indian tribes of Central and South America.

During the presentation of these units a parallel study is made of the development of the primitive or ancient instruments into those of the modern orchestra and of the emergence of tone groupings or patterns into a succession of notes forming the early or primitive scale. Well-known examples of music in this scale, such as Negro or Scotch songs, are sung by the class.

The groups are now ready to proceed to a consideration of those countries which still use the primitive scale. This is termed the "Around-the-World Unit." The two most interesting regions in this unit are Africa, because of the variety and crudeness of its instruments, and Java, because of the uniqueness of its orchestra (gamelan) and the appropriateness of its opera (wayang). The music of these lands is presented by means of their folk songs and instruments. These native songs, composed in an ancient scale, further enhance the parallel study of primitive modes.

After the present-day world of primitive music has been brought to a close with a study of the opera of Java, the ancient world commands attention, and the transition is made through a study of a modern opera with an ancient setting; namely, *Aida*. By this procedure not only can a comparison be made between primitive and European opera but a modern approach to an ancient country can be instituted at a time when the Chicago Civic Opera Company is opening its season or the San Carlo Company is concluding its program of operatic presentations. Thus the students have an opportunity to see an operatic production as well as to study one, for in the classroom they become familiar with the music of *Aida* through recordings or selections at the piano. Likewise, in the second act of this opera Amneris is entertained by her servants, who play and sing the music of her country. Here is a splendid opportunity for the class to see in retrospect the native instruments of Egypt. For this purpose a reproduction of a five-stringed harp (the harp of Didumen of the Middle Kingdom) and the ancient "Song of the Harper" in Egyptian are used. The oldest Coptic songs are sung to lute accompaniment. Last year the class even reproduced in English

a setting of the "Hymn to the Sun" by which the early Egyptian kings were awakened in the morning. The difference between the music of *Aïda* and the ancient music of Egypt is thoroughly discussed.

Once established in the ancient field, the study passes directly, with no assisting modern musical medium, to that of Mesopotamia and Greece and Rome. The instruments of these countries, reproduced through musical research, form a part of the music integration museum of primitive and ancient instruments. Particular emphasis is placed on the Greek cithara as the precursor of the violin, the dulcimer as the precursor of the piano, and the Roman organ as the forerunner of the modern pipe organ. Music for these instruments—that is, for both the modern and the ancient types—is carefully presented and compared. The study of the organ brings to an end the first semester's course and leads quite naturally to that of the second semester, at the beginning of which the early Christian Church is under consideration in the history classes and the rise of church choirs and the use of the organ in the church services are studied.

This freshman course seems to us to offer not only a simpler approach to music study but a different type of presentation from that in which attention is concentrated on a study of European composers. However, only those ancient instruments are chosen and only those types of music are presented which have a counterpart in the world of modern music. By means of this measuring stick, much of the material which might be used in an integrated ancient music course is often found unnecessary or extraneous. Therefore, only that portion is retained which has meaning for a young student in the modern world.

Project books are kept not only to serve as textbooks but also to promote the spirit of research and to test mental alertness in discovering new items regarding the world of music and history. These books contain outlines of the units of the course; clippings, pictures, or photographs bearing on the subject; original musical compositions; drawings of the instruments; accounts of museum trips or programs attended; and articles written by the students themselves. Some students construct, in the project shop, musical

instruments which they may use in classwork. One student even went so far as to reproduce the lyre of Ur, discovered somewhat recently, and by means of this research greatly enriched the Mesopotamian unit.

*The Integration of Music and the Foreign Languages.* The French, German, and Spanish classes study the songs and music of the countries whose languages they are studying. Spanish classes, for example, learn to sing in Spanish the songs of the various provinces of Spain as well as the songs of Mexico and South America. They study Spanish dance forms, such as the fandango and the seguidilla, or the hybrid forms occurring in South America and on the American borderland, such as the rumba or the Jaurez. They listen to the music of Spanish or Latin American composers, including Albeniz, Granados, and Lecuona, presented by recordings; and to the playing of instrumentalists, such as Segovia or Iturbi, presented in the same manner. Some of the lessons feature non-Spanish composers who have represented a famous Spanish subject, as, for example, Richard Strauss and his tone poem *Don Quixote* or Harl McDonald and the third movement of his *Concerto for Two Pianos and Orchestra*.

We feel that the integration of music and Latin is unique, especially in the fourth year. Not only do the Vergil classes learn about the instruments of ancient Greece and Rome and hear the fragments of music which have survived, but the students chant or sing portions of their Vergil, in the modes and to the accompaniment of the cithara, in order to obtain more easily the feeling for language rhythm (scansion) and the meaning of ancient epic poetry as exemplified by the opening words of Vergil: "Arma virumque cano." Each year certain members of these classes write their own songs. For instance, when the classes study lyric poetry they set an ode of Horace to music. Medieval music is not neglected, however, and recordings of Gregorian chants are presented. The class sings the great music of Palestrina or a modern Latin composition such as the "Ave Maria" of Kodály.

Through the use of music with the foreign language study, the student's vocabulary is increased, as he memorizes some of the

songs in the language of the country he is learning. The culture received from his language work is enriched by the knowledge he gains of the great music and musicians of the country concerned. The fine literary compositions which he studies, such as Goethe's "Erlkönig" or the poems of Verlaine, are better understood when heard in their musical settings by Schubert or Debussy.

*The Integration of Music and English Literature.* There are some units in the English courses which should never be given without music—notably ballads and lyric poetry, particularly Burns' lyrics. The deep need of having music for a complete understanding of these phases of literature is obvious. Music also plays a very strong part in a pioneer unit through its sea chanteys, mountaineer and cowboy songs, or recordings by Carl Sandburg. The music and instruments of the Elizabethan period serve as a splendid background for the study of Shakespeare, whereas knowledge of the music of the period of the French Revolution enhances the understanding of such books as *A Tale of Two Cities*. Music is employed for all of these purposes in our integrated English course.

*Results of the Introduction of Music Integration into the School Curriculum.* By our establishment of an integrated program in the school curriculum, music has been brought into the classroom as a vital part of its teaching procedure and is considered a necessary study for understanding the culture of the country or era studied. Music has been given a new dignity in the eyes of the students as well as of the faculty, and the slogan "Music for Everyone" has been fulfilled. This is demonstrated by several outgrowths of the music integration work, chief of which is a series of school concerts sponsored by the music integration club known as "Musicale" and presented to over 800 New Trier students who sign up to attend at a nominal fee. This series is reaching out into the community as well, and Musicale is inaugurating a children's series for the grade schools. The club itself holds meetings in which it presents to the students recordings requested by them.

Because of music integration, community singing is having a rebirth in the classroom. Here the students just get together and sing—no vocal technique is required. It may be an Elizabethan

round or a Spanish folk song or a German art song, but it is sung in the "spirit of the times" and with vociferousness.

Perhaps one of the principal results of the use of music as an integrated subject is the regeneration of the outworn music appreciation curriculum in schools. New and fresh material is needed for integration; and this naturally finds its way into the regular music courses, enriching them and revitalizing them.

#### *A New Course in Senior English*<sup>4</sup>

The experimental course in English for twelfth grade accelerated pupils at New Trier began as a reaction against the single-text, chronological approach to literature. The sudden plunging of pupils essentially interested in modern literature, who had little acquaintance with classic works, into a study of Chaucer and Shakespeare was unsatisfactory from our point of view. Pupils of the experimental group come to us with the habit of wide reading, with fresh minds capable of mature thinking, with analytical powers and judgment far beyond their years. It remained for us to prepare them for college work in English and to extend further their interest in reading.

We took as our goal the development of adequate or better ability to use the English language, both spoken and written; the understanding and appreciation of any piece of prose or poetry; and the habit of wide reading of good literature, both ancient and modern. Further, from reports coming back from college freshmen and college authorities we tried to meet two specific needs: proficiency in note taking on lectures and practice in writing long examinations.

These specific needs we treated as necessary evils. Weekly lectures by now one teacher, now another, gave the pupils practice in listening and taking notes. For this information they were held responsible and were tested accordingly. Two-hour examinations were also introduced, modeled on the College Board Examinations and the University of Chicago Scholarship Examinations. One examination gave pupils practice in reviewing an entire semester's work.

Our basic assumption in regard to literature was that these

<sup>4</sup>Report from teachers of senior English classes.

pupils, practically all of whom were preparing for college, needed an appreciation of all forms of literature. The overemphasis on poetry in most anthologies seemed to us an error in judgment. The confining of the study of drama to one or two plays of Shakespeare was neither teaching pupils to appreciate the drama as a pleasant and instructive form of reading nor preparing them to view a legitimate performance with appreciation and understanding. The neglect of modern poetry by most makers of anthologies (copyrights, of course), the scarcity of examples of good modern fiction, and the annoying habit of giving tantalizing bits of great pieces of poetry—all of these we sought to overcome by dispensing with a required anthology. A classroom library was the only solution to our problem. A fee of one dollar was charged each semester, and with this money new and secondhand copies of plays, novels, essays, and poems were added to our collection. After eight years we have built up a sizable library which is ready at hand and which proves an enticement to pupils who are ready to read and learn.

We start out the year with an eight-week study of the drama. We work from the modern play back to Shakespeare, back to the Greek dramatists. One-act plays afford a good approach to the dramatic method. Then follow modern social problem plays, then recent historical plays. Next we deal with pure comedy. Copies of the most recent Broadway successes are at hand. Finally there is a study of tragedy, at first the modern tragedy (O'Neill's *Emperor Jones*) and then Shakespeare (*Macbeth*). We find that with this approach the reading and understanding of Shakespeare is no problem.

In addition to a few texts that everyone is required to read, students are expected to read widely in each field of the drama. The time allotted is eight weeks, but there is no lag in interest. Many students admit that they will now turn to play reading as a form of reading entertainment. Most had admittedly never before read a play except as a classroom exercise.

The second unit of work deals with an approach to poetry. We want boys and girls to like poetry first of all. We can wait for analysis and discussion. Choral reading occupies the first week, with the poems of Lew Sarett and Vachel Lindsay as a

starter. Then we bring out the quality of imagery by the wise selection of examples from an anthology of modern verse. Recognition of synecdoche and metonymy is not our aim, but the realization of the beauty and force of figurative language as it is employed by the poets and prose writers. Next we turn our attention to the ability to understand the compressed thought of poetry and, through analysis and *précis*, bring home to the pupils the fact that beneath most worth-while poetry is a significant meaning that he who searches for it may discover. Lastly we consider the question of form in poetry, especially as it influences and is determined by the emotion, idea, or effect desired. After this introductory study of poetry we select poems from Tennyson, Browning, and recent English and American poets for study. This unit occupies us for six weeks.

The remaining four weeks of the first semester are given over to the formal essay. We have, in the past, used bound volumes of *Harper's* and the *Atlantic Monthly*. We felt that there was a distinct gain in introducing pupils to two of our best literary magazines. In addition, the articles read served as introductions to subjects that could be investigated through wider reading in other periodical literature. Opportunity for intensive study, however, was not present, and we have since added an anthology of formal essays which serves the purpose of training pupils in analytical, thoughtful reading.

During the second semester the work is confined to fiction and poetry. *Henry Esmond* and *The Return of the Native* are read intensively, and at least three modern novels are required for additional reading. Here again the approach to the classics is by way of the modern, contemporary literature. The practice of modern reviewers is studied, analyses of trends in literature are made, and practices of contemporary novelists are examined. The two classics are then studied for more detailed analysis. The poetry studied is the work of the four great romantic poets, Wordsworth, Byron, Shelley, and Keats. One of the satisfying results of this course has been the enthusiasm and critical appreciation with which our pupils meet the challenge of these poets.

During the second semester it has been our practice to give



in lectures once a week a chronological survey of English literature. All of the great literary figures from Chaucer to Keats are dealt with in this survey. The great movements of English literature are analyzed and readings suggested.

The course as outlined above has satisfied us that what was essential in the chronological approach has been saved, and in addition a wealth of material has been added that is omitted from the conventional course. Acquaintance with nearly all of the great forms and the great names of literature is one achievement, but in addition the course also achieves an independence in forming literary judgments that is even more important.

### *Faculty Philosophy: Education for Democracy*

The standing Committee on the Philosophy of Education for New Trier High School has been concerned from the start with the importance of teaching democracy in the public high school and with creating democratic situations in which pupils could learn to live democratically. This resulted in a standing Committee on Democracy which constantly studies the life of the school and cooperates with student organizations in considering, planning, and carrying into operation more democratic procedures.

This Philosophy Committee has issued reports in the past few years on "Education for Democracy," "Education for Vocations," and "Education for Character." These reports have been prepared after consultation with the faculty and students and have been followed each time by the formation of standing committees on each subject. These subcommittees have taken over the task of continuing the work of the Philosophy Committee in the special field, while the Philosophy Committee went on to new problems.

In the first report of the Philosophy Committee—"Education for Democracy"—occurred the following paragraphs:

We assume, then, as a generally accepted postulate, that one of the major objectives of a public high school is to educate for citizenship, to the end that the democratic way of life may be understood and appreciated, and democratic institutions developed and maintained. Education for this purpose is evidently to be accomplished in three

ways: first, through instruction in the principles, institutions, and processes of democracy; second, through the inculcation of democratic ideals and the development of proper attitudes; third, by providing well-directed activities which will afford abundant opportunities for the application of such principles and for the establishment and expression of these ideals and attitudes.

If such a program is to succeed, the entire school must share in it. There must be a unified, persistent effort to infuse into every future citizen the spirit of democracy. This objective must be regarded as a primary purpose for which the school exists, and every teacher and pupil must become vividly conscious of the fact. To illustrate: when a pupil enters New Trier he knows that if he wants to go to college the school will do its best to prepare him for that. There are an elaborate curriculum and a definite administrative organization carefully designed to achieve that purpose. Teachers, advisers, adviser chairman, deans, and pupils themselves are expected to keep the goal in mind throughout the four years. In the same way it ought to be possible to institutionalize the more fundamental objectives of education for citizenship. Only about two-thirds of our students enter college, to remain for a period of four years or less; all of them are to be members of a democratic society as long as they live. If the thing herein proposed can be accomplished, there is ground for the hope that education for democracy may yet succeed.

How can the problem be solved? Professor Kilpatrick bluntly asserts: "First of all, if our schools are going to teach democracy, they must be so run that our young people can and will live democratically. . . . In the degree that our pupils do genuinely live their democracy in school and community, in like degree may we hope they will live their democracy in the years to come." This is merely an application of the principle of learning by doing which underlies so much of our teaching in all subjects; surely it is no less fundamental in education for citizenship than it is in physical education, manual arts, English, or science.

This principle of learning by doing implies, then, that to be successful the school must become a laboratory of democratic living. This, in a word, is what the committee recommends.

The report went on to discuss ways and means of bringing about this greater emphasis on democratic living.

Evidence of the success of the subcommittee appointed to take over this work of education for democracy came a few years

later when the following reports were issued by the New Trier Student Council. They seem to be of sufficient importance to quote.

### *The Origin of the Philosophy of the Student Council*

The purpose of a Student Council is to practice and understand the theory of democracy. In order to improve the practice of this ideal we had to change the form of our student government at New Trier. After creating the new Council, we found it necessary to create a policy by which we might be guided. To fulfill our aim of a truer democracy at New Trier and at the same time to keep future Councils always on this path, we were convinced that we needed a fundamental philosophy to guide us.

But it was not until we read a faculty committee's report on the "Philosophy of the New Trier Curriculum" that we received a clue to what we had to create. After studying this report for several weeks and receiving excellent background to the problem we faced, we decided to refer the actual writing of our philosophy to the Council's Executive Board and our faculty sponsors. The group at first tried to point out the work the Council had already done and tried to formulate from this a number of basic ideals of democracy. But this turned out to be merely a justification of what the Council had already done—or hadn't done.

We then decided to set down a number of principles which were within the Council's range. The aspects of democracy which could be dealt with only indirectly were ruled out and we concentrated upon those angles which were found to be within our understanding. After creating these ideals, we proceeded to fit the work of the Council into these principles. We gave examples not only of work which the Council had done, but also of the work which lay ahead in order that we might accomplish our ideals. Unable to foresee all future problems, we kept these specific references general enough so that there is a certain flexibility to the philosophy.

After a number of meetings in which these ideals and plans were formulated, we found that the interest of the group had begun to lag and that we were progressing more slowly than desired. Because of this we decided to refer the actual writing of

the report to four members of the Executive Board and the faculty sponsors.

In the report's actual composition a number of problems were encountered. We found it necessary to keep the philosophy in language simple enough so that it would not be above the average student's comprehension. This made the condensation and clarification of our ideas essential. Another problem which faced us was the need to be on guard for any statements that could be misconstrued by any student or any faculty member. For example, in one paragraph we stated, "The students and student organizations should be given much more voice in making up regulations and policies of the school." This could easily have been misinterpreted and might have caused much ill feeling. Therefore, we rephrased the paragraph and wrote what we really meant to say, which was, "The students and their organizations should be given much more voice in setting up regulations and policies of this kind as fast as they show a proper sense of responsibility."

We also had a tendency to be too blunt and undiplomatic. After a little consideration we decided that it would be disadvantageous to write in such a manner and thus create much antagonism toward our organization. We, therefore, kept our original ideas but rephrased them in more diplomatic and acceptable sentences.

After finishing this writing we held a discussion with New Trier's faculty Committee on Democracy, which yielded many valuable suggestions. We then polished the English composition. Thus, after five months of labor (meetings called on Saturdays, 9:00 A.M. to 5:00 P.M.), the "Philosophy of the Student Council" was completed except for thorough discussion by the Council as a whole. The report was accepted, with minor changes, and is now the major guide for future activities of the Student Council.

### *Excerpts from the Philosophy of the Student Council*

One of the chief functions of education is to provide training for citizenship in our democracy. To that end the framers of our government supported a public school system because they be-

lieved that only through an educated citizenry could democracy function and be successful. The New Trier Committee on the Philosophy of the Curriculum has adopted a policy intended to increase the effective teaching of the theory and practice of democracy. This committee proposed increasing the opportunities for students to live in a democratic society within the school. If the Student Council has any function, it is the practice of this ideal. It is the purpose of this report to establish certain principles of democracy and to propose methods by which the Council can extend an understanding of the theory and practice of democratic living. In doing this, we are attempting to apply to the work of the Student Council the principles set up by the faculty committee.

We feel that there are two fundamental aspects of democracy which are generally accepted. First, democracy is based upon respect for the worth of the individual; this implies the largest measure of individual freedom consistent with the general good. Second, democracy is a theory and a system for cooperative living. . . .

Citizenship in a democracy entails certain obligations. One is voluntary obedience to just laws. Such voluntary obedience can be secured only when the students realize and understand the reasons for these laws. It is one of the chief functions of the Student Council to cultivate this understanding among the students. To this end the Council should hold frequent group discussions, assemblies, forums, adviser room discussions, etc.

But an understanding of law cannot be produced by a mere statement of reason. Trying to formulate laws because he realizes their need helps a student to arrive at this understanding. Therefore, we believe that students should be given the opportunity to participate in the creation and operation of the laws that govern them. For example, many students do not understand why certain regulations in study halls are necessary; and when student supervision was established, the Study Hall Committee was immediately faced with the formulation of a set of rules under which they would operate. Their final result was nearly identical with the regulations set up by the faculty. But in formulating these rules the members of this committee and the

students in these study halls developed a much greater understanding of the nature, origin, and purpose of these laws than they would have if they had merely taken these regulations as handed down by the school authorities.

Could we not secure more voluntary obedience to law if students had similar opportunities to formulate policies and regulations concerning traffic, assemblies, athletic and disciplinary affairs, study halls, the dining hall, etc.? The students and students' organizations should be given much more voice in setting up regulations and policies of this kind as fast as they show a proper sense of responsibility. This influence can be achieved by greater cooperation between the faculty, administration, and students.

### Conclusion

The developments described in this report are only a few examples of the changes we have made in our school as a result of our participation in the Eight-Year Study. There has been a gradual breaking down of departmental lines, along with a growing willingness to challenge traditional methods of approach and study seriously better ways of helping boys and girls. We have, however, quite frankly worked within the traditional subject matter headings, feeling that it is not so important what you name a class period as what you do in it.

We have seen a growing willingness and ability on the part of students to enter into the planning of their own work, but we have found this much easier to bring about in the life of the school outside the classrooms than in the actual classroom situation. Certain teachers, however, notably one in a ninth grade science and English course and another in a junior English course, have been particularly successful in this regard.

In the early days of the Study we took too narrow a view of integration and thought that it could be accomplished by bringing together various subject matter areas. Like many other schools, we are gradually realizing that the vital thing is having students and teachers work together in all departments for a common end, and create a flexible organization in which co-operation can take place naturally when the need arises.

The unsolved problems largely center around creating more flexibility in a large public school situation and around developing in both faculty and students a keener understanding of the factors involved in a progressive educational experience. The time element; the pressure on teachers caused by heavy teaching loads, many assignments, extracurricular assignments; the demands on teachers' time by the community, by other educational organizations, by highly organized guidance programs; the ever-increasing demands from the parents and the community that the school teach citizenship, teach vocational information, teach health, teach good character, teach safety, teach temperance, pass on the culture of the race, and at the same time graduate vocationally efficient young people—all these things, combined with the natural frailty and limitations of human nature, create some of the conflicts and unsolved problems.

The years of our participation in the Eight-Year Study have been marked by an increase in: (1) correlations within the school curriculum, (2) cooperation of the personnel in fostering the assumption of responsibility by students, (3) the study and practice of democratic principles by students and faculty, and (4) pride on the part of everyone in having a share in American education.

## THE NORTH SHORE COUNTRY DAY SCHOOL

WINNETKA, ILLINOIS



A statement of the influence of the Eight-Year Study on the North Shore Country Day School should be prefaced by an account of some of the principles and practices of the school, for, when the Study began, the school had already made adjustments in certain of the directions indicated in the statement of the objectives of the Study.

### *Development of the Program*

By 1932 the school had developed on the high school level what was known as the "enriched curriculum." All members of the high school were required to take two periods a week in shop, art, and music. Close correlation existed between the work of these departments and that of the academic departments, through the agency of class projects and individual interests. Quite frequently the activity in the arts and crafts periods was devoted for weeks at a time to the support of projects developed in the subject matter classrooms, as, for instance, a class of girls used their shop periods to construct and keep in repair equipment used in experiments they were carrying on in the biology laboratory; art classes often devoted their time to developing costumes and settings for plays which were being sponsored by the History, Language, or English Departments; the Music Department trained classes or groups in music to be used in connection with plays or more academic programs. Such practices, vigorous and usual in the high school of the present day, developed a student body which used naturally and freely the resources of the arts and crafts in any field of activity to which they could contribute.

It was only natural that many should develop specialized interests in these fields. The school provided for these in the establishment of what were and are known as music, shop, dramatics, and art "majors." These rated in consideration for



both graduation and college entrance with all the other subjects in the high school. They were not necessarily the resort of those who could not get along with the traditional academic subjects. Many of our most able pupils seemed to want them and were permitted to have them.

In this connection it should be noted here that our problem in the high school never has been to get pupils to take more work, but rather to get them to give up work which was beyond their capacities. It was and is usual for most of our seniors to be surprised to learn, upon consultation with college representatives, that they have the equivalent of seventeen or eighteen academic units. And if the required sequences, in health and social standards, art, shop, and music, should be counted as a unit each, all our graduates would be presenting the equivalent of nineteen units.

In addition to the enriched curriculum which encouraged a widening of individual interests, the school had developed new orientations of the traditional academic subjects. The three years of mathematics, for instance, were not divided into algebra, geometry, and intermediate algebra. Instead, the mathematical functions were presented in a sequence based upon the logical relationships of subject matter and upon the relative difficulty of the concepts. Some geometry appeared in each of the three years. Some of what is known as intermediate algebra appeared in the first-year course, etc. Emphasis on logical thinking in non-mathematical fields was an integral part of the mathematics instruction, and portions of mathematics periods were devoted to the practical application of mathematics to problems arising in the school community. In English and history the movement toward correlation was already under way in the correlation of United States history and general literature worked out in the senior year despite the apparent restrictions of the College Board Examinations in those subjects.

The thought that interest should be the dominant motive for study early led the school to give up the use of marks as an incentive to pupil work. The school had no honor roll; it gave no prizes for excellence in any field. Mathematical grades were not used, and the chief emphasis of the grading system was upon a

teacher's comment rather than upon a symbol. While it would be an untruth to say that no one in the school worked for the sake of getting a good report, yet some of the graduates have in all seriousness criticized the school for failing to teach them "to work for marks and professorial approval"!

The school has always recognized that adolescents have needs with which the school must be concerned. It sought to keep in contact with the problems of growth through its required four-year courses in health, sex education, and social orientation given by the Physical Education Department and the headmaster. Believing that differences in the rate of physical and emotional development of the two sexes require differences in subject matter treatment, the school separated boys from girls in all classes of the freshman year, in some classes of the sophomore year (depending upon the apparent need of the groups), and in the mathematics classes of all years except the fourth. To provide for a desire of boys and girls to have places of separate resort, the girls' groups had different home rooms from those of the boys. In the high school there was a girls' floor and a boys' floor.

In an effort to give adolescents the increasing independence which their growth makes them demand, the school granted them an increasing share in the government of the school community, in the management of parts of the school program, and in the management of their own time. Freshmen and sophomores were in charge of minor committees. Juniors and seniors had charge of major committees; the operation of the school library, of study halls, and of the student government. At the top of the school stood the seniors, who as a class had unsupervised study halls and a fairly free hand in organizing their own time.

### *Examination of the Program*

The foregoing features are as characteristic of the North Shore Country Day School today as they were before the advent of the Eight-Year Study.

The Study was welcomed. Under the direction of the Commission on the Relation of School and College, it seemed to offer an opportunity for the North Shore Country Day School and kindred schools to determine, with the cooperation of the col-

leges to which the schools sent their graduates, whether the program of these schools had elements which should have a wider currency in the general field of education.

In accepting membership in the Eight-Year Study, the school retained its relationship with the College Entrance Examination Board. Ninety per cent of its graduates went to college, 70 per cent to colleges requiring the examinations of the Board. The school has never been seriously troubled by the necessity for College Board Examinations. It had been able to maintain its full program for all its pupils irrespective of their candidacy for examination. Its quarrel with the examinations was with their content and scope rather than with the authority of the Board. It wished to eliminate that type of examination which encouraged cramming and substitute for it an examination more clearly a test of power. Few if any of the graduates of the school have made application to colleges requiring Board examinations for admission without examination. Happily, it may be noted, the impact of the Study upon the Board has been such as to bring about desirable changes in the type of examinations.

Nevertheless, the faculty felt the stimulus of the Commission's challenge and established various curricular committees to examine the program of study, the reports and records system, and to keep abreast of the progress of other schools. Out of the work of these committees came closer correlations in the subject matter fields. In English and history an attempt was made to establish correlations, similar to those of the senior history and English, in the junior history and English. The Language Department worked with the English Department to bring about a closer relationship in grammar and literary study. A three-year science and a four-year social study sequence was set up. The system of reports and records was several times revised.

Indeed the faculty became, for a time, more subject-matter-and-report-conscious than it had ever been. But for the strength of custom and school tradition, the faculty might well, in their concern for integration, orientation, correlation, and the social order, have lost sight of the individuals and the groups that had been placed in their care. From its beginning the school had been concerned with integration, orientation, correlation, and

the social order, but had not intellectualized its process into terms. It had been thinking of growing human beings and their needs. It had a program which experience had made a strong tool in its hands. It feared that it had little to contribute to the solution of the problems of the great public high schools. Nor could it give to the educational researcher anything in the way of an experimental group, for the democracy of student and teacher which was innate in the structure, faith, and fundamental practices of the school forbade the segregation of either a superior or an inferior group for observational purposes. It is a school in which all are trained to work with one another and to give what they have to the common enterprise, and where none are singled out to be honored or handicapped.

From the point of view of the school, contact with the Study has been a fruitful experience. The faculty has been greatly stimulated to a constant awareness of what is going on in the educational world. The opportunities of discussing curricular problems with the experts of the Commission have been gratifying. The fellowship and discussion in the conferences of the Commission have been annual high points in the academic year. The reports of the Commission from the colleges where our graduates are enrolled have been of great value in helping us shape our policies and practice. The closer contact with college deans and admissions officials has given us a better understanding of the college problems.

If finally we appear unregenerate in our ancient faith and seem, in the words of Flora Cook, "to have grown to love our chains," and if in the eight years of the Study we have neither changed the social order nor contributed materially to the orchestration of curricular dissonances, yet we are not the same as we were. There are few if any of our classrooms which have not been enriched and invigorated from the association of the school with the Eight-Year Study.

### *Sex Education and Personal Standards Curriculum*

At the North Shore Country Day School we have attempted to face the problems of sex education squarely and directly, and have made a study of the various phases of it over a period of

fifteen years. What we are attempting to do is really to help the student bring about a well-rounded and balanced personality so that he may live satisfactorily and joyously with himself, and at the same time to help him find his place in the social environment about him, energetically and intelligently enough so that he will contribute something to the clarification and the solution of the problems facing us all. We have found that these problems are interrelated with the personal problems of the individual and that assistance in adjusting to them is to be found in every classroom and in other school activities in which the child participates. Nevertheless, a direct attack throughout the high school years is helpful.

The first and most pressing problem which seems to underlie all student activities is the adjustment to the opposite sex and to the same sex. The school early repudiated the idea of a sex education class which attempted scientifically and impersonally to acquaint the student in a few months or even a year with what is generally known as the facts of life. The emotional content of the sex adjustment is so strong that we found that the approach to this problem must be gradual and constant, beginning far back in the grade school; that the child must be conditioned to receive the information and make the adjustment underlying this problem, by the environment and general attitude surrounding him as well as by the everyday experiences he encounters as he comes up through the school. It is for this reason that in each of the lower grade rooms some sort of pet or animal is always made a part of the child's experience. Guinea pigs, rabbits, doves, white mice, and even tropical fish, and the care of these during the breeding season, have all been used as a matter of course in the lower grade experiences. The fourth grade for many years has centered its interest in keeping bees, and each year gives assemblies describing its experience in learning to understand and care for these insects.

It has been notable that the interest which the older children take in these programs as they go through high school does not diminish, although they themselves had the same experience with the bees many years before. There is always something new

to learn and, as the child's experience in life increases, the interpretation of the analogy of the bees' society becomes deeper and broader.

This phenomenon has been experienced all the way through high school, and is one of our strongest arguments against a definitive sex education course lasting over a given period and then not touched again. On each age level as the child comes to understand himself and society more and as his own perceptions and emotions change, new light and interpretation are thrown on old problems and ideas. It has been found extremely helpful for the children to have the opportunity, every year throughout the high school, to discuss any of this they choose.

There have also been the usual courses in physiology and biology as the children come up through the school, but principally in the seventh and the eighth grades—all of which helps prepare the child for a more definite discussion of physiology and sex and its emotional and social implications when he reaches the ninth grade. One time we found it necessary to begin the more specific study of sex in the eighth grade; but after the courses outlined above had become established, the children did not seem to need this until later.

After experimenting for several years with classes of children of various ages, the boys and girls having been kept segregated for a while and in mixed groups for a while, it was agreed that at the beginning of the seventh grade there seems to be a need for the two sexes to have an opportunity to withdraw from each other, in some class activities more than in others. This is primarily true in athletics, where different types of games are enjoyed by the boys and the girls; but we carefully left opportunity for softball games, and even soccer games, which both sexes could join in the free play period.

In the classroom, however, we found that, beginning in the seventh grade, the segregation of the boys from the girls in mathematics and in science was a great advantage. This seemed to be based on a principle which has worked out in other adjustments made later in the school—that it is unwise to put the sexes together for any activity in which one sex seems to have the ad-

vantage, even though a temporary one. This seems to be true in science and in mathematics, where boys have had much more of a background of experience than their sisters.

By the same token, inasmuch as the girls tend to mature socially much faster than boys, we find that in the eighth grade it is just as well to separate the children in the language classes, where the girls' more mature interests tend to give them an advantage over the boys. During the eighth grade year they are kept together only in classes such as social studies and English literature, where an appreciation and understanding is deepened by breadth of discussion and diverse points of view.

In the ninth grade we thought we found a great sensitivity and interest in the whole matter of sex adjustment. And here a new principle evolved for which we have had many years of confirmation; i.e., it is unwise to put the boys and girls together for any purpose in which the interest of the student for the activity undertaken is not greater than the interest in the opposite sex. Carrying out this principle, it was found that dramatics and social activities are about the only activities at that age intense enough to overcome the sex interest. Pupils are, therefore, separated in all classes except when—in English, history, language, or dramatics—dramatic activities are involved.

It was also found that there seems to be a real and fundamental need for each sex to be able to withdraw from the other much of the time, but an equally fundamental need of an opportunity to mix freely and naturally under other conditions.

In order to meet these needs, the school has segregated the boys from the girls by establishing separate home room groups throughout the four years of high school. The girls have one floor of the high school building, each grade with its own room and its own room adviser, who is a teacher. The boys live on the floor above. Each room adviser holds his classes in his room; therefore the girls come to the boys' floor for certain recitations, and vice versa. When the girls are on the boys' floor, they are guests and behave as such; the same thing is true on the girls' floor. This makes possible much more privacy and sense of security than is usually enjoyed in the coeducational school. As one girl who transferred here from a large public high school re-

marked, "It is so comforting not to feel you are on parade all the time you are in the school building. Here I can stay away from boys for weeks if I want to. Yet if I want to see them, I can always help myself."

In the tenth grade appear symptoms which seem to show that the sex adjustment has already begun. It is therefore possible to bring the boys and girls together in their English and literature classes. In the eleventh grade, as the language classes have now reached the level of literary appreciation, we find that mixing the two sexes is profitable. In the twelfth grade the adjustment in most cases seems nearly complete, and it is a great advantage to have the students together in every one of the classes.

It has been most gratifying to note the effect of this arrangement on two types of individuals. The shy boy and the shy girl who frequently tend to withdraw more and more into themselves have often become well adjusted to the opposite sex. The following incident shows how complete may be their adjustment. When a particularly sensitive and awkward lad discussed the question of this modified form of coeducation with our headmaster and was asked whether or not he disliked the presence of the girls in the Vergil class during the discussion of such intimate subjects as the love of Dido and Aeneas, he replied that he could not, for the moment, remember whether there were any girls in his class and that certainly he had not been conscious of any embarrassment. The student who is overinterested in the opposite sex also seems to benefit from this arrangement, because there is ample opportunity for an outlet for his interest with no undue restrictions, which, as in the case of boarding school, seem to intensify rather than to diminish this problem.

Running parallel to this arrangement of classes are the seminar groups, each conducted by one of the more experienced teachers—by the headmaster wherever possible. These begin in the ninth grade, where the students meet the teacher once a week—the girls separated from the boys—to discuss with him any pertinent problem that seems to loom large on the horizon. The atmosphere is informal, yet controlled. The teacher usually opens the class by asking whether there are any problems or questions which



the students wish to raise. The replies lead to the discussion of varying topics, from the quality or quantity of the food in the lunchroom to marriage relationships or the international situation. However, the ninth grade almost invariably drifts into a discussion of sex, and it becomes clear that a thorough understanding of the physiology and psychology back of the sex relationship is necessary to the answering of the questions raised. Students and teachers thereupon settle down to a definite series of meetings to build in a background against which a sensible answer to the question can be given. For instance, the question in the girls' section was: "Is it more unfortunate to be born a girl than a boy?" The class has been working on that question all year.

In the tenth grade the questions seem to center more on social adjustments, the understanding of the debutante system, some understanding of the social order in the world. It was here that the question of evolution versus special creation first arose. Usually by the end of the year, discussions of comparative religion creep in.

In the eleventh grade the students seem to be seeking a philosophy of life, and often will raise the question of religious faith or become deeply interested in the psychological reactions of the human mind. In both of these two years the questions of sex adjustment and sex relationships crop up again, and are freely discussed, although the interest in any one question does not seem to last so long as in the ninth grade.

In the senior year the first problem is to establish a good moral tone in the school. The seniors are held responsible for making any rules necessary along this line. Their responsibility enables a frank and impersonal discussion of moral and social standards, and frequently reveals conflicts between the student's personal standards and those he wishes to impose on the other students in the school. The second half of the year is devoted almost invariably to looking ahead to the moral and social standards at college and the problems to be met there. Here again sex relationships are brought up and met as squarely as possible.

It has been found that by the use of scenes from plays, or of chapters from books, impersonal discussions of intimate prob-

lems may be readily carried on and many attitudes brought out which would otherwise not be revealed. During this year many of the principles and philosophies of the school are discussed, and nearly always suggestions for the improvement of these seminars are elicited. Almost invariably the students testify to the need of such discussions. They wish personal interviews with their parents at home, of course. They also do a great deal of discussing among themselves, but the preponderance of opinion seems to show that the discussion led by an adult and participated in by the group is of great value.

### *The Parents Association*

Close cooperation of the school and the home has from the beginnings of the school been regarded as essential. We have always maintained that at least half of our responsibility is the education of the adults most directly affecting the children's lives.

Just as in discussion groups the influence of students on one another is a very large part of their educational experience, so the influence of adults on one another in discussion groups is a great force in their education as teachers and as parents.

The school attempts, therefore, to make the parents feel that they are an integral part of the school, essential to its welfare and to the growth of their children. It does its best especially to avoid an attitude on the part of the parents that they are doing a favor to either the child or the school by taking part in its activities. The officers of the Parents Association have achieved this spirit by the maintenance of what may be called the merit system. The various activities in the school, such as the lunchroom, the library, the art room, the costume room, et cetera, have been placed in the hands of the parents, but only when they show themselves better able to administer these activities than teachers or other professionals. The demand for appointment to these various committees has become very great—as a direct result of the merit system, we think. For when a mother realizes that in order to serve on a committee she must show herself efficient and able in that particular activity, it becomes an honor rather than a duty to belong. Appointments to these committees are made at the recommendation of the Parents Association by action

of the board of directors of the school. Nearly every family of the school has some representative on one of the committees. This gives the parents a feeling of belonging to the school and of having the same right to be there during the school hours as have the children. It takes away the old idea that parents visit the school either to spy on the child or to criticize the teacher. The children begin to put pressure on their parents to take part in these activities, for otherwise they feel their parents do not belong and the other parents do. These activities give the children, also, an opportunity, very rare these days, to see their parents at work on a job not definitely associated with the child. In other words, they become fellow workmen in a common project—all of which helps to bring about a closer relationship among the students, parents, teachers, and the school.

But the backbone of the Parents Association is the meeting of the grade groups. This, of course, is common in many schools. All the parents of one grade form a unit and meet several times a year to discuss common problems either with themselves or with teachers. At a country day school the parents are in effect the faculty in charge of dormitories, and need to come together for clarifying their policies and ideas. But just as it is a mistake for the school administrators to try to maintain discipline in each teacher's class, taking that prerogative away from the teacher, so the Parents Association cannot change rules or regulations in any home. That is the prerogative of the parents in that home. And as much as they might like to unload part of it on the school administration or the Association, they lose cast and validity in the eyes of their children if they do not maintain their own rules because they themselves believe in them and are able to enforce them.

However, the discussions that come up in the group meetings give many a timid parent enough courage to believe in his own ideas and to enforce them without trying to lean on the prestige of the school.

Therefore, it has been laid down as a principle that no vote regarding regulations at home, or anything similar to a vote, shall be taken in parents' meetings; that the discussion shall be frank and open; and that, if the consensus of opinion is apparent,

it will not be necessary to vote and, therefore, try by implication to force the will of the group upon any individual.

It is necessary, of course, to hold many meetings of a social nature in order that the individual parents in any group may become sufficiently acquainted with one another to be willing to discuss intimate questions quite frankly; but as soon as the spirit of the Association becomes apparent to a new couple entering the group, it is remarkable how quickly they catch the enthusiasm of the others.

In such meetings as these—usually held five or six times a year by each group—it is easy for the teacher to bring up the type of discussion that has been going on in the student seminar—thereby acquainting the parents with the general feeling in the student group but avoiding, of course, any reference to persons and personalities—and to receive from the parents help and suggestions as to the most pressing problems in the children's minds as revealed at home.

So essential does this work of adult education seem to the parents themselves that they have written and published, in pamphlet form, a manual of guidance for the grade group chairmen, so that the grade groups may more efficiently and promptly attack their work at the beginning of each year.

The activities joined in by the students and parents become more numerous every year. The feeling of being a part of a common enterprise is quite definite. Each year the school is astonished at the amount of work accomplished.

### *The Music Curriculum*

The music curriculum at North Shore Country Day School has been developed through growth and expansion to meet the needs of the students, rather than by revolutionary change to keep step with current theories. Music has been part of the life of the school from the beginning of its career, with the purpose, expressed and achieved, of training the student as a listener, and as a participant according to his ability.

It is not sufficient to say "Let the music speak for itself," and teach children many songs of widely varying character, with no explanation of background or significance; nor, on the other hand,

to offer a mass of technical information and biographical anecdote totally unrelated to the child's experience. The curriculum provides, therefore, that all students shall have the experience of singing a wide variety of the great choral works through participation in a chorus consisting of the entire high school during the autumn and spring terms, the winter term being devoted to the production of an opera in which a large proportion of the students take part as choristers. It has been found, however, that senior-year students who, because of deficient sense of pitch, have been unable to learn to enjoy singing will much more profitably expend time and interest on a study of a related subject than in joyless attendance at chorus rehearsals. It is pertinent and of interest to cite the case of two able boys who, when released from participation in the chorus, turned a very genuine and eager intelligence to research in the physics of sound, which culminated in the construction of an efficient oscilloscope. Such exceptions are made only with respect to the particularized study and practice of part singing; all students take part in the general singing of the school at the daily morning exercise and on special occasions, such as Christmas, where the socializing and unifying force of music as a shared pleasure is unmistakable. In addition to these provisions for active singing, the students are also given, during their four years, weekly classes which are devoted to the development of intelligent listening capacities. This is achieved by the playing (on piano and phonograph) of music in a comprehensive variety of styles and periods, so that by pursuing a definite but flexible plan which catches the students' interest at its most lively point, and by giving adequate nontechnical explanations, it is possible to give the average class, by the end of four years, a good general knowledge of dance forms, concertos, symphonies, and program music from the eighteenth century to the modern period.

The possibilities of correlation of music with other subjects have not yet been fully realized. In cooperation with the English Department, successful projects have been carried out in the study of ballads and other poetry; with the Art Department in presenting folk art and costume of various European countries, and in building a coherent program of music and tableaux at

Christmas; and with the German department in making a comprehensive study of Lieder as the perfect blending of two art forms.

The most diversified practice of correlation is possible in the annual production of a Gilbert and Sullivan opera, in which practically the whole high school takes part: approximately two-thirds of the students sing in the chorus or as soloists, and the orchestra is composed largely of student players; the Drama Department is involved not only in the actual direction but also in the training of the stage crew which is responsible for the lighting and the proper management of the scenery, which itself is designed and constructed by students under the supervision of the Art and Shop Departments. The Physical Education Department devises and directs the dancing; the business management and accounting are done by students advised by the Mathematics Department. Research in historical and literary background is frequently necessary, and is done under various auspices; and the close cooperation of the parents in making costumes correct to the last possible detail is an invaluable asset. Gilbert and Sullivan operas are ideal for school purposes: the choruses are important musically and dramatically, which makes possible the maximum emphasis on the necessity for cooperation between principals and chorus; the dialogue is witty and rich in language. The music is gay and attractive, and is written skillfully as well as tunelessly; it abounds in musical "quotations" and is frequently the starting point of the students' enjoyment of more profound composers. The production affords an occasion for students to play in the orchestra in company with skilled musicians and since situations frequently arise which demand not only musicianship but presence of mind—as when an over-anxious singer makes an entry two measures too soon—the combination of circumstances offers an unparalleled opportunity to learn through experience.

One danger in the requirement that *all* students be exposed to music during their school years lies in failure to provide adequate scope for the more talented and able students, whose interest, aroused by singing, playing, or listening at school or by the study of an instrument at school or elsewhere, carries them farther and

faster than the average class can go. It is necessary, therefore, to give further opportunity and encouragement to students of superior gifts and mature capacities. For those who play, instrumental ensembles in addition to the orchestra are formed and fostered; for those interested in harmony and composition, and in an analytical and critical approach to music, the curriculum was enlarged to include a music major course, which is elective for eleventh and twelfth grade students. The choral work of the high school chorus is considered part of the course; in addition, there are two class periods each week, one of which is, as a rule, devoted to harmony and the other to history and what is known as "appreciation." Many colleges accept the completion of this course as a unit toward graduation.

The study of harmony includes the harmonization of melodies and basses in major and minor keys, using common chords, seventh chords, and unessential notes; a knowledge of various forms of cadence; and a knowledge of modulation. Ear training plays an important part in this work.

The history classes give an outline of music from the sixteenth century to the beginning of the twentieth, and provide a working knowledge of the forms in which music has been written. The order is, on the whole, chronological, but with considerable freedom in discussing the evolution of form, the development of "schools," and the effect on music and musicians of political, religious, and social upheavals. The Music Department's steadily growing library of records is used to expand the student's knowledge of all forms of music: singing by solo voices, ensemble and chorus groups; instrumental compositions for all combinations and aggregations of instruments; and characteristic music for archaic instruments, such as harpsichord and lute. As much as possible of the solo and choral music is sung by the class, and compositions for piano are frequently played by students as well as by members of the faculty. Every encouragement is given to develop an interest in performance for pure enjoyment. Students are free to borrow records to play at home, and this has resulted in a broader use of the library and in an increased familiarity on the part of the students with a great deal of music, whether or not it is being currently studied in class. Harmony and history

are not kept in airtight compartments; a technical device learned and practiced in harmony class comes to life when discovered in the work of a great composer. Because of limitations of time and of the record collection, comparatively little attention is given to opera. With this exception, the student is introduced to, and becomes to some extent familiar with, every type of music from short dance forms to symphony.

A gratifying aspect of the work with the music major classes has been the robust and spontaneous effort on the part of the students to explore every resource that will give strength and validity to their knowledge and enjoyment of music. Independent reading of the numerous fine books available on musical subjects and personalities, attendance at concerts, and a thriving interest in the best programs that radio has to offer testify to the solid and intelligent pleasure that the students find in a trained approach to music.

### *The English Curriculum*

The English Department of the North Shore Country Day School welcomed the opportunities for exploring and enriching the curriculum which the Eight-Year Study afforded.

Until 1933 the English work of the high school was dominated by the idea that its curriculum must be oriented to meet the needs of adolescents. In the light of this motive the English program had been crystallized about dramatics. Dramatics gave incentives for writing and for the imaginative and intelligent re-creation of literature. It presented problems, the solution of which ramified into many fields of knowledge and activity.

In its use of drama the department was under no illusion that acting in a play or building stage scenery was a substitute for effective reading and writing. It felt, however, that dramatics did offer a functional approach to literature and composition and that it did meet fundamental needs of young people. In the department's theatre the timid could be "brought out" and the individualistic could learn to subordinate themselves to the group. Cooperative group action dominated. Each student learned to give his special skills and interests to the group activity,



to respect the aptitudes of others, and to rejoice in the surprising successes of the least likely individuals. All had turns in the various phases of the projects. Above all, it was a truly democratic activity with many dimensions in which innumerable boys and girls found a validity among their fellows which they had not hitherto possessed.

Under the stimulus of the Eight-Year Study, dramatics tended to recede in importance as the department began to turn toward the academic subjects in the curriculum for fruitful alliances. Senior English related its study of epic poetry to that of fourth-year Latin and its study of romanticism and realism to that of fourth-year French. Junior English in one of its sections made contacts with the newly established junior science course. Each of these upper-class courses learned to accept reading and writing in other fields as part of the English work, junior English going so far as to orient a large section of its work about library research methods in which the topics for research and presentation were chosen with reference to other fields of study. In the freshman and sophomore years the vocabulary and grammar study was turned over in its entirety to the Latin and Modern Language Departments in the interests of more intensive activity in new materials. Sophomore English found its materials in the moving picture; freshman English, in the social studies.

By far the strongest correlation during the experimental years was in the direction of the social studies. Freshman English linked itself with the freshman social studies course. The freshman boys' English concentrated upon the literature of the Midwest in collaboration with the freshman social studies consideration of the same area. This correlation came most effectively to its peak after the end of the experimental period in a year when the social studies class made a social and historical study of Illinois while the English class made an intensive study of Abraham Lincoln. The freshman girls' section of English tended to give considerable time to collaboration with the girls' social study in connection with young children in the Lower School.

Junior and senior English allied themselves closely with the history courses of the two years. Junior English was sectioned with reference to those taking modern history and concentrated

on the study of Elizabethan and Victorian England. Senior English paralleled the United States history course by attempting to show through literature the meanings of the concepts of liberty, democracy, and individualism. Though it had no parallel social studies course with which to affiliate, sophomore English nevertheless took on a strong social science bias as its instructors sought more and more to draw its materials from the problems of the contemporary scene. The course made its farthest reach leftward in 1939, when considerable time was spent upon the problem of soil erosion.

With the opening of the school year 1940-1941, the department found itself in reaction against some of the extremes of the experimental years. It felt that many of its correlations were dominated more by adult logic than by the needs of adolescents. It knew that in its concern with things and problems it had permitted the general level of written work to fall both in form and in content. And it was acutely conscious of the fact that too close a tie with the social studies had restricted the opportunities for cultural enrichment and enjoyment which the department could and should offer.

The 1940-1941 program of the department was set up with the following objectives in mind:

1. Less written work but more carefully guided written work each year.
2. Careful attention to reading skills, with the development of the capacity to read on more mature levels each year.
3. Correlations only where correlations will fertilize the students' thought and imagination. One successfully correlated unit should be adequate in any year. Correlation through individual interest is perhaps the strongest.
4. The incorporation into each year of a program of dramatics adapted to needs and capacities of the given age level.
5. The concentrated study each year of the life and work of at least one important personality in English or American literature.
6. The selection of materials throughout in a consciousness that not the least service the English Department can render democracy is to bring young people into contact

with the best thought and effort of sensitive and generous men and women.

7. Alertness to the emotional and social needs of young people so that the program may assist them in their personal growth and in their understanding of people and events around them.

### *The Social Studies Curriculum*

Until the school year 1933-1934, for some time ancient history had been the only history course available for freshmen and sophomores. This course was spread over two years, meeting three times a week. With the self-examination that the Eight-Year Study opened up, we realized that our history curriculum was inadequate; and after much deliberation we turned to the planning of a history or social studies "core."

This was to be a ninth-grade half course in general social studies based on current events, a sophomore course in ancient history, a junior course in medieval and modern history, and a senior course in American history. However, in the actual development the courses moved from the position of "core" subjects to electives, generally taken as "equalizers" by those whose schedule was too light or as extra ballast by those who could carry an extra course by high capacity.

About the same time a "core" in science, alternative to the history, was devised; this was two years of Biology (two half years, meeting three times a week), general science for juniors, and physics or chemistry for seniors. This arrangement tended to break down as a core, for few students could manage the necessary schedule time to carry it through. Finally, of course, no one on the faculty wished to recommend to anyone so unbalanced a setup as all history and no science or vice versa. Certainly, the courses were not planned with the idea of strict adherence to them as cores, but rather more as an offering, or possibility as a core, with the choice left open to see how they would work out in the future.

*The Freshman Course, 1933-1937.* This course was begun in 1933-1934, the material to be the present as a key to the past, the immediate and near as a start to the study of the more dis-

tant and remote (as offered in the later courses). The material was drawn from current events. *News Week*, *Time*, *Current History*, the *Atlantic Monthly*, *Harper's*, *Scribner's*, were used quite generally as well as the daily newspapers, and the *Scholastic* was subscribed for individually by the class. The aim of the course was to enable the pupil to derive from the use of these sources a sense of cause and effect, and of cogency and logic in the use of the material; a habit of scrutinizing sources; an acceptance of delayed judgments; an ability to reconcile divergent statements; and, in general, a grasp of the historical method. It soon became evident that the scope of the material was more than could possibly be encompassed by the whole class in its meetings three times a week. Therefore, each pupil was asked to choose one foreign country on which to develop a full current picture and one business or industry in this country on which to specialize. As soon as the N.R.A. developed sufficiently to be documented, this phase of study was linked with the industrial scene. In connection with this, there grew up a program of weekly talks by parents on their interests in a particular business and its association with governmental control. These talks continued for three years, until the year 1936-1937. There was an enormous growth in the amount of material on this general subject both from the presses of the government and from private printings such as Columbia University's *Building America* series, which was very capably presented for boys of freshman age. From such a beginning, allied studies and concepts stemmed: Labor, Strikes, Housing, Social Security, Money and Banking, Propaganda, Agriculture in Relation to Industry.

In 1936-1937, with the discrediting of the N.R.A., the industrial material was dropped in favor of a more general governmental study, particularly on the presidential election that year, and the magazine and newspaper materials were augmented by pamphlets such as *America Votes*, *Our Constitution*, *Current Problems in America*, and *Current European Problems*.

From the beginning of the experiment, no one text was ever considered the final answer but, when used, was a common source, and a notebook of clippings made by each pupil was the real textbook. One year a correlation with shopwork was at-

tempted through the building of models, but it was all too evidently only "busywork."

To those teachers concerned with it, this general course—for all its tremendous latitude—seemed advantageous; but to gain some unbiased perspective a testing program was followed. As the facts embraced were too wide for any published standardized test, a test on general understanding seemed best, and Wesley's Tests on Social and Political Terms were used. The gains at the end of the year over the beginning were evident in all pupils, and the majority of the class always finished with a grasp above the norms for freshman year.

*The Freshman Course, 1937–1938.* After 1936–1937 the course changed hands and used material based on Propaganda, Advertising, Types of Government, Race Prejudice, and School Problems and Adjustments.

The course for girls roughly paralleled that of the boys until 1935–1936, when current events were allied with social activities within the school, such as cooking and serving and, later, helping with the lower grades.

*The Freshman Course, 1939–1940.* In the spring of 1939 the social studies teachers of the sixth, seventh, eighth, and ninth grades worked out a plan for the four grades involved. This plan was very simple: the four years were to be devoted to a study of American life. The sixth grade was to take up the discovery of North and South America; the seventh was to cover the early coastal settlements and the movement westward within the United States; the eighth grade was to make a study of production, distribution, and consumption of necessities, with particular emphasis on food, clothing, and shelter; and, finally, the ninth grade was to study contemporary American life through a study of the local community.

Within this general framework the individual teacher was completely free to work out his course. It was up to him to supply the theory, subject matter, method. He could rely entirely on a textbook; he could work it out on a project basis; or he could use any combination of the two, or neither.

In the ninth grade social studies, with a minimum of maneuvering, a suggestion that we make a social and economic survey of

Winnetka came from the class itself. Immediately one of the boys wanted to know why we should do it, anyway. It had probably already been done. So we decided to look into the matter. Two days spent in checking up, in the library, village hall, and among individuals, established the fact that no such survey had been made. Very little more than what was found in the federal and school census was definitely known about the social and economic setup in the community. Satisfied on that point, our next question was: Did anybody care? Was it worth doing? So again a few days were devoted to inquiries among fellow townsmen to find out whether they were interested and whether such a survey would have any value.

Several shopkeepers thought that it would be valuable to them to know more about their clientele. The Evanston Cooperative was debating the issue of whether it should open a branch in Winnetka, and some of the members thought such a survey might aid in their decision. Several individuals agreed that it would be interesting to see the results of the project.

After threshing out these various points in the classroom, it was decided that there was enough interest to go ahead with the study.

It is interesting to note that, in spite of the fact that such a project would allow them to wander about the village during school hours and even to make a leisurely stop at the soda fountain on occasion, every one of the boys and girls wanted to be very sure that the community as a whole, and particularly the adult element, would consider the job worth doing. They had been fooled too many times, tricked into doing things, and wanted to make doubly sure that this time it was the real McCoy.

Having answered most of the doubts to our own satisfaction and having definitely decided to go ahead with the survey, we found the next problem was to draw up the questionnaire. This the students thought to do at one sitting. They listed questions and decided to try them out on family and friends. This preliminary test proved the complete inadequacy of such a hasty job, and the next three weeks were spent in drawing up the "census sheet" and refining its form so that the results could be easily tabulated.

The questions ranged from population (number of men, women, and children) through the standard of living (number of servants, cars, radios, bathrooms; size of house; number of labor-saving devices, such as washing machines, vacuum cleaners, etc.), occupation of breadwinner, politics, to clubs and religion.

On a map, the village was divided into sections by a committee which assigned two students to each section. It was planned to canvass one out of every five families in each block. In this way, it was thought, we would get an adequate sampling of the community.

Since we had only forty-five minutes a day available, some four weeks were consumed in the actual block-to-block canvass. It took another three weeks to tabulate the results. The rest of the term was employed in discussing the implications of the figures and in working up diagrams and graphs to present the material.

The figures indicated that Winnetka has an amazingly high standard of living. Among other things, over 60 per cent of the men were found to be college graduates; 64 per cent were employers and only 36 per cent could be classed as employees. It was found that there was an average of one servant, one and one-half cars, and almost three radios for each family in the village. And so on down the list.

Individual projects were being carried on to determine the number of doctors and lawyers living in the village, the number of grocery stores and beauty shops (24 and 26 respectively), and so forth.

Instead of a midyear examination, the boys and girls were asked to write papers on the history of Winnetka, showing how the village had come to be what our survey had shown it to be.

In gathering material for this history of the village, it was discovered that no single source was available. Facts and information had to be collected from old newspapers, memoirs, documents, and visits to the oldest living residents.

So here was another contribution that could be made. We could gather all the material collected by individual members of the class and combine it into one story of the village. This

had not been done before, and could well be a genuine contribution.

The second semester was spent on putting together a booklet entitled *Winnetka, Past and Present*. It combined the history and the results of our survey. It was financed by getting merchants in the village to sponsor it at \$2.00 apiece. In return they had their names listed on the back page, as a form of advertising.

Four pages of photographs, taken, developed, and printed by the students, were included. Then there were block prints, graphs, and diagrams. It was found that printing was too expensive, so we mimeographed the booklet ourselves.

All this took up the entire second semester, so that the project was continuous throughout the school year. Interest and enthusiasm were amazingly constant during this period for the reason that the class felt they were making a real contribution to the community. They had a sense of doing something important. Such things as having the merchants willing to sponsor the booklet added greatly to this sense. An occasional thrill, such as when they discovered the story of a village murder which was not in the police records, kept interest alive.

In the end, what looked like a cut-and-dried survey had led to action (of a kind) even in such a progressive model community as Winnetka.



## THE RADNOR HIGH SCHOOL

WAYNE, PENNSYLVANIA

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The Radnor High School is a six-year public school with an approximate enrollment of 800 in a fairly wealthy suburb of Philadelphia. Of the township population of 12,000, 16 per cent are of Italian birth or parentage, 11 per cent of miscellaneous foreign birth or parentage, and 10 per cent are Negro. Occupation studies indicate that the major group tends to have more than the normal proportion of adults commonly classified as professional, executive, and retired; the minor groups tend to domestic service and unskilled labor.

Children of all groups attend the same public schools. Differences in race, speech standards, and location of residence stand out sharply. The future captain of industry and his gardener may attend the same classes. To promote mutual understanding, respect, and cooperation is a real problem for the school as well as for the community.

As recently as fifteen years ago, only 51 pupils graduated from high school for every hundred who were in the sixth grade six years earlier. In 1939, 90 graduated for every hundred who were in the sixth grade in 1933.

The chief emphasis in the school program is upon general education for all, centering in English and social studies. In the senior high school, about 44 per cent fill up the balance of their program with college preparatory subjects, 6 per cent with commercial subjects, and 50 per cent with industrial and household arts. During the past four years, 37 per cent of the average graduating class of 109 attended college.

### Overview of Progress

Our purposes, as originally stated to the Directing Committee, called for a program of education to be developed for a group of students in the senior high school selected on the basis of:

1. Intellectual ability and interest as revealed in the junior high school.
2. A manifest seriousness of purpose and cooperative attitude on the part of the pupil.
3. The interest and continued cooperation of the parent.

The program for such a selected group was to be organized about a three-year course in literature and the social studies. To this was added general courses in science and mathematics, which would insure some continuous contact as a layman in these fields for each student and which could be expanded in accordance with the interests and needs of individuals. Technical English, oral and written expression, were also added as needed. Languages and the arts were offered as electives.

Some progress has been made toward the achievement of our original purposes, but primarily our progress has been made toward a clearer understanding of what those purposes should be. The following new purposes and curriculum developments have grown out of our endeavors of the past seven years:

1. Almost immediately we gave up the original intent to confine the study to a selected, able group. The same arguments that made it wise for us to provide more adequately for the gifted made it equally imperative that we modify the program to meet the limitations of the less able students.

2. Implied in our original program but only now clearly understood was the belief that the school was primarily a place for activity, largely self-directed, not a place for the assignment of homework and for the recitation of set lessons. We are now working toward a situation in the senior high school where the student will be largely responsible for much of his time, to schedule it and use it under guidance as he deems necessary or desirable for his purposes.

The student's time is divided into those periods which he schedules with his class group and those which he schedules independently as laboratory or work periods. These latter vary in number according to his needs and may be rearranged at any time for good reason.

3. A corollary of this effort to make every room a workroom is the endeavor to define our task as teachers more and more in

terms of guidance. The best of us are assuming a responsibility for a child that embraces the problems of home life, community contacts, social life, recreational program, and spiritual development.

4. The social studies do not differ greatly from our original plan except in the fact that there is greater freedom to adjust, to change our emphasis, to use contemporary problems and issues, and, in general, to shift from a logically arranged course that covered a succession of centuries to a series of problems usually associated with the present.

The units selected for classwork are the result of the combined planning of pupils and the teacher. Working together, they draw up the objectives, define the information necessary for background, and determine the activities through which purposes are to be attained.

After a subject has been chosen as a unit, the various departments are canvassed for possible contributions. Instructors are invited to participate and to serve as advisers to any committee engaged in an activity which carries over into their particular field. This cooperative planning has become quite common in both the social studies and the English fields.

A clearer sense of responsibility for experiences that contribute directly to changes in the individual student seems characteristic of the department. This has led to the selection of materials and activities which develop critical thinking on current problems, demand discrimination in analysis of data, provide bases of generalization, call for understanding and tolerance, and invite social responsibility and participation.

5. In English all the work seems more vital and timely as reflected in units on the Newspaper; the Radio; the Magazines; and especially in cooperative ventures with other departments on German, Russian, Far Eastern, and American Cultures, Propaganda, and Home Relations.

The English Department seeks greater individualization through:

- a. More frequent conferences on themes and on reading.
- b. Special assignments according to interest and ability.
- c. Individual reading programs and records.

- d. Freedom of students from "mass" requirements where ability has been demonstrated.
  - e. Special attention to slow readers.
  - f. Great emphasis on teacher-pupil planning.
  - g. Development of units out of student interests and needs, when and as these interests manifest themselves and these needs become established.
6. Science is not essentially different from the original program calling for a layman's knowledge of science for all students. Such a course affords broad experiences in this general field for those not interested to the point of specialization, and provides a constant invitation to wider contacts for those who might discover in science a real challenge on the basis of either vocational or avocational interest.

The informality of the program has invited much more individual exploration and real application. Hence in science perhaps more than in any other field, there is the continuation of work in the afterschool time—if "work" is the proper term to apply to the intense absorption in some special project under the guidance of an equally enthusiastic teacher-learner. (For example, students as individuals or small groups working on radio, photography, electrical experiment, telescope, lapidary machine, salt water aquarium, fruit flies, or huge geographical mural.)

7. Little change seems to have been made in the subject matter of mathematics. Emphasis has been placed on what mathematics as a way of thinking contributes to an understanding of the nature of proof, the application of principles, and the interpretation of data.

This emphasis plus the continuing teacher arrangement has involved less breaking up of mathematics into algebra and geometry or into fixed segments of work for each grade. In fact, the chief change to be noted in mathematics of the senior school is in the almost complete individualization of assignment. This classroom procedure has resulted in the development on the part of many students of a capacity for self-directed independent work and has permitted an adaptation of content to background, ability, and future objectives that seems highly desirable in any

program of education. It makes possible the recognition of work done outside of the regular school program and has called for a better utilization of time on the part both of the one who can forge ahead doing "two years' work" in one and on the part of the one who needs extra time to acquire a satisfactory mastery.

With changes in school population, there is being developed a new program of mathematics for cooperative or industrial art groups based on problems growing out of vocational elections or shop experiences. Such a course, which now seems to consist of reviews of much that was prematurely taught, suggests the need for a more complete reorganization of the mathematics of the elementary and junior high school. That program was built up on the assumption that all must be finished by the end of the eighth year because half of the children would by that time drop out of school.

8. It is significant to note with these changes a very material expansion of interest in the field of arts. Much of the development has been in the form of distinct contributions to the English, science, and social studies fields.

9. Like mathematics, the languages in the senior school suffered little change. Method and purpose in languages changed rather than content. The emphasis in both French and Latin is on ability to read with comprehension. Grammar is presented as needed in reading.

A combination of minimum assignments common to all plus enrichment assignments, depending on ability and interest, makes a year of Latin or French mean very little as a measure of achievement. The general practice is to carry students on into the two upper years — reading on whatever level of attainment one has reached. As a result, individual differences in the amount of work achieved are considerable: an average of 2,100 pages per student up to 4,900 pages in two years. This program places before the best students an opportunity, an encouraging atmosphere, and the needed guidance to do work superior both in quality and in quantity to that possible under earlier programs.

10. Since the change to the workshop type of activity, there is less need for formal classes; therefore certain administrative changes are implied. The schedule of regular appointments for

teacher and class has been reduced to two or three formal meetings each week. Other contacts are in incidental groups arranged by the students and varying in number to meet their needs. This seems to promise a very effective substitute for the traditional study hall, which to many was merely the place to go when one had nothing else to do. It is largely through this increased flexibility that we have been able to extend our opportunities in music and art.

11. Much of what was formerly called "extracurricular" is now recognized as essential educational experience. Especially in the subject field areas much has been absorbed into the regular classroom program, with a tremendously vitalizing effect.

12. The junior high school grades are contributing what seems to be one of the most significant developments in our program. The work of the seventh and eighth grades is built up about the community as a general theme. Most of the English, social studies, and science grows out of this program; much of the mathematics and arts is related directly to it, as is much of the school life, organization, assembly activities, etc.

The community theme, however, is not the most important element of this development. The real core of the program is to be found in the assumption of responsibility by a number of teachers for the entire program of education of a given student group. This responsibility is not the usual assignment by a subject teacher: "I will take the English, you the science." It is a joint responsibility—the group meets regularly to plan the whole program, to evaluate results, to replan. The students are regularly made a part of the planning process.

### BUILDING A COMMUNITY<sup>1</sup>

The present program of the seventh and eighth grades is really a development of several earlier attempts to find some general organizing principle that would coordinate and tie together the work of the several teachers at this level. In 1935 the teachers

<sup>1</sup> In the following excerpts from the report of the Radnor High School we have preferred to include a full account of a few notable developments rather than a general account of the whole program. EDITOR.

of the seventh grade developed a series of units — "Adventures in Living in the Home and Community." Four areas under the general theme were singled out and placed for major emphasis in the care of as many teachers: Health, Leisure, Citizenship, Skill subjects.

Perhaps the greatest development took place in health. An attempt was made to coordinate the efforts of the teachers, the community, the physical director, the medical inspector and nurse, and the home. In other fields there was too little felt need for cooperative planning, or perhaps we were too inexperienced in such cooperative techniques to make our early attempts really successful. This first program, with some modification, was followed with limited success through several years. The central organizing element seemed lacking or inadequate.

In the spring of 1938 a group of interested teachers took the third step in the evolution of our present seventh-eighth grade program. As an initial step, a broad, general plan was made for the entering seventh grade pupils. The plan held the nucleus of interest, activity, and, we believed, the necessary challenge for learning. As the program developed, the pupils as well as the faculty, realized the desirability of carrying the main theme or idea through the eighth grade. Thus a seventh-eighth grade curriculum has been developed.

The faculty works closely together as two units, one for each grade; and each member is vitally concerned with what is happening to the child in fields other than his own. These teachers may be specialists in the field of English, mathematics, science, and social studies, but primarily they are specializing in seventh or eighth grade personalities. They do the major planning of the core work and suggest the contributions which their respective fields can offer.

One of these subject matter teachers acts as chairman of the faculty group and stays with the pupil group throughout both seventh and eighth grades. She acts as the "coordinator," and with the cooperation of the entire faculty group guides the pupil's school experiences during the two-year period.

To give continuity to the pupil's seventh and eighth grade experiences, to enrich the subject matter curriculum by change

of personality, and to help keep the subject matter contributions from becoming static, one or two of the subject matter teachers continue with the pupil group from the seventh into the eighth grade.

In so far as scheduling has permitted, the subject matter teachers are also the home room and workroom teachers for the various sections. This gives our core group of teachers the opportunity to see the child in many types of experiences and situations.

Although there is no body of subject matter superimposed in any way on the seventh and eighth grades, and although the teachers of these grades do not make subject matter the ultimate end of the program, we do not disregard the subject matter or departmental lines of our junior-senior high school. Teachers of the seventh and eighth grades attend departmental faculty meetings, help to formulate policies of their respective departments, interpret the program, and arrange for classroom visitation. As a result, the program has had the active cooperation, enthusiastic support, and marked interest of most of the members of the upper school faculty.

Two periods during the morning session are set aside each week for faculty group meetings—one for the seventh grade group and the other for the eighth grade group. The coordinators attend both meetings, and interested faculty members who are in no way connected with the program frequently attend a seventh or eighth grade discussion group. At this meeting the teachers report progress, plan cooperatively, exchange views, discuss pertinent pupil and curriculum problems, and formulate policies. This meeting is conceded by every member of the faculty to be the important part of the whole program.

#### THE SEVENTH GRADE PROGRAM

##### *Becoming Aware of a Community*

The first unit of work is planned largely by the teachers and requires approximately three months. The purpose of this block of work is to orient the pupils—to acquaint them with new surroundings and personalities, to awaken an interest in their environment, to create an awareness of the meaning of com-



munity living, and, through many individual, self-directed assignments, to develop initiative and the desire to explore the unfamiliar. Stimulation of the imagination, too, is of vital importance if the work is to be valuable as a springboard for the work which follows.

Our first unit of work deals entirely with Radnor Township—our own political unit. The township itself is our laboratory. During the study of the community our pupils become aware of the meaning of “community” and how it happens to be. The coordinator initiates the problem and draws from the pupils the broad, general divisions of study. From core, the pupils go to the various subject-matter teachers. In this first unit no study is a thorough, detailed one. Teachers are concerned with the broad, general aspects of the community. We touch every topic of community life which we anticipate will be studied in detail during the next two years.

*Core.* Any activity which makes a pupil aware of his environment may be used in core as a starting point for this community activity. The simple question “Where do you live?” can well be the initial step. Draw a map of your community and locate on this map your home, neighborhood grocery store, library, church, and school. This is indeed a challenge to the pupil. It surprises him to be confronted with many details which he does not know about his immediate environment. He is ready to consider the question: What is my community?

1. *Social Studies Contribution.* The social studies teacher asks: “How did Radnor get its name? Who settled it? How long has it been in existence? Why did the people choose to settle here? How did the Conestoga Road get its name?” To answer questions such as these, the pupils with the social studies teacher plan trips; explore old, historic centers; invite historically informed citizens into the classroom; plan with the local newspaper to have students spend many periods in the “morgue” of the local newspaper building learning the history of their community.

2. *Science Contribution.* What is the climate of my community? How can I predict the weather? How does weather affect my community? What physical conditions attracted the

early settlers in this section of the United States? Where does the township get its water supply? These are some of the important questions which direct the science contribution. In the solution of these problems, the pupils learn the topography of their home environs and the weather conditions which exist. They further develop an appreciation for the foresight of the early settlers of their community.

3. *Mathematics Contribution.* Concepts of size and distance and the relationship of numbers are learned through studies of community population, distances within the township, population of schools associated with our own athletic league, or recordings of scores and average of sporting events of interest to the pupils. Road maps to aid understanding of our environs are secured from local gasoline stations. Much of the material which the pupils acquire is used to illustrate talks and reports in various situations. These reports necessitate the making of graphs of various types to clarify ideas or present statistics effectively and interestingly.

4. *English Contribution.* English plays a dual role. It is used as a tool for the expression of ideas and the stimulation of the imagination. Letters are written inviting speakers to the school, asking for information, making arrangements for trips, or expressing appreciation for services. Letters, as well as other writing, require exactness. This need motivates spelling, penmanship, and correct usage.

Wide reading is encouraged. Pupils secure books from the community and school library. Guidance is given, but the pupil is free to make his own selections. We try to direct the pupil so that he will read on his level of ability and derive enjoyment from his reading. Because we are eager to have the pupil's imagination stimulated, we surround him with books of bold deeds, high adventure, and other life experiences with which the student will identify himself.

### *Planning the Physical Aspects of Our Community*

As an outcome of this first unit of work, the pupils launch a project of building a community of their very own. Although an imaginary one, it nevertheless becomes real to them. "Estab-

lishing One's Self in a Community of One's Very Own" now becomes the central theme for the entire seventh grade year. The idea of a community has by this time become familiar to the seventh grade pupil. During the past three months he has been made aware of being an integral part of one. Because the idea of a community is a big problem with which to grapple, it seems an appropriate vehicle for the young adolescent. He enjoys manipulating the big. It offers him a challenge. In so far as each pupil can identify himself with the project will the work be interesting, meaningful, and worth while.

*Core.* For weeks the pupils have been motivated by possibilities of improvement within their own community. Their civic consciousness has been awakened and encouraged by each teacher. They are ready for constructive activity. Since they are young and their community is adult-directed, their own efforts and desires are now guided into the possibilities of establishing their own—one in which they can plan, organize, and live. Each of the four sections within the seventh grade now formulates its own plans to build its own Utopia. The questions of importance in core now become: What type of community shall we have? Where shall we locate it? What size shall it be?

1. *Science Contribution.* Science, in anticipation of the pupils' decision to know something of the United States, had gone from its home geography of the first unit into a type of geographic survey of the United States. Why people have settled where they have, types of communities in the United States, and the relationship between geographic location and making a living have been studied in groups and committees.

*Core Again.* In core, committees are now formed to present ideas concerning the type of community to be established. Pupils who desire a resort community form one committee; those who wish to establish an industrial town form another committee, and so on. Each committee brings together its information. A speaker is selected. He presents to his entire section his group's reasons. He tries, of course, to be persuasive. He uses displays, opinions of adults with whom members of his committee have talked, and his findings through reading. He draws heavily upon the information he has acquired in his science class. When each

committee has reported, a vote is taken. The decision is final.

The second core question now arises: Where shall we locate our community? The same procedure is used as was used in the selection of a type of community. The group secures maps from every available source. They may even write to the state capital in which their town is to be located; they tell the state department something of their plans and their reasons for desiring to locate in the particular state; they have the assurance that there is available land in the particular spot they desire.

The time that has been scheduled for core is now devoted to the building of the community. Problems which arise in the community or core motivate and give meaning to the work of the subject matter specialists. In so far as possible the pupils go from core to their teachers aware of a need to develop a skill or in search of information to solve a particular problem. The pupils return to core and use the skills acquired or the information gained in the solution of their own problem. Teachers must, of course, work very closely together and constantly check back and forth. Each must know what the others are doing.

### *Planning the Organization of the Community*

*Core.* After the community location has been decided upon and a name has been selected, the need for government arises. Up to this time the core teacher has been directing the meetings of the group with some pupil assistance. The next question to be answered is: How shall we govern our town?

1. *Social Studies Contribution.* To learn how cities are governed, the pupils go to the social studies teacher. He directs their study of city and town governments. He strives to be neutral. After a somewhat detailed study, the pupils return to core and vote upon a form of local government. Speeches are made in favor of a particular form; reasons are demanded by fellow classmates; a vote is taken. In the two years, three groups have selected the town meeting form of government, three the commission plan, two groups the city manager plan, and one group the mayor-council.

How shall we plan our town? While the pupils in core are setting up such necessary machinery of government as making

terms of guidance. The best of us are assuming a responsibility for a child that embraces the problems of home life, community contacts, social life, recreational program, and spiritual development.

4. The social studies do not differ greatly from our original plan except in the fact that there is greater freedom to adjust, to change our emphasis, to use contemporary problems and issues, and, in general, to shift from a logically arranged course that covered a succession of centuries to a series of problems usually associated with the present.

The units selected for classwork are the result of the combined planning of pupils and the teacher. Working together, they draw up the objectives, define the information necessary for background, and determine the activities through which purposes are to be attained.

After a subject has been chosen as a unit, the various departments are canvassed for possible contributions. Instructors are invited to participate and to serve as advisers to any committee engaged in an activity which carries over into their particular field. This cooperative planning has become quite common in both the social studies and the English fields.

A clearer sense of responsibility for experiences that contribute directly to changes in the individual student seems characteristic of the department. This has led to the selection of materials and activities which develop critical thinking on current problems, demand discrimination in analysis of data, provide bases of generalization, call for understanding and tolerance, and invite social responsibility and participation.

5. In English all the work seems more vital and timely as reflected in units on the Newspaper; the Radio; the Magazines; and especially in cooperative ventures with other departments on German, Russian, Far Eastern, and American Cultures, Propaganda, and Home Relations.

The English Department seeks greater individualization through:

- a. More frequent conferences on themes and on reading.
- b. Special assignments according to interest and ability.
- c. Individual reading programs and records.

- d. Freedom of students from "mass" requirements where ability has been demonstrated.
- e. Special attention to slow readers.
- f. Great emphasis on teacher-pupil planning.
- g. Development of units out of student interests and needs, when and as these interests manifest themselves and these needs become established.

6. Science is not essentially different from the original program calling for a layman's knowledge of science for all students. Such a course affords broad experiences in this general field for those not interested to the point of specialization, and provides a constant invitation to wider contacts for those who might discover in science a real challenge on the basis of either vocational or avocational interest.

The informality of the program has invited much more individual exploration and real application. Hence in science perhaps more than in any other field, there is the continuation of work in the afterschool time—if "work" is the proper term to apply to the intense absorption in some special project under the guidance of an equally enthusiastic teacher-learner. (For example, students as individuals or small groups working on radio, photography, electrical experiment, telescope, lapidary machine, salt water aquarium, fruit flies, or huge geographical mural.)

7. Little change seems to have been made in the subject matter of mathematics. Emphasis has been placed on what mathematics as a way of thinking contributes to an understanding of the nature of proof, the application of principles, and the interpretation of data.

This emphasis plus the continuing teacher arrangement has involved less breaking up of mathematics into algebra and geometry or into fixed segments of work for each grade. In fact, the chief change to be noted in mathematics of the senior school is in the almost complete individualization of assignment. This classroom procedure has resulted in the development on the part of many students of a capacity for self-directed independent work and has permitted an adaptation of content to background, ability, and future objectives that seems highly desirable in any

program of education. It makes possible the recognition of work done outside of the regular school program and has called for a better utilization of time on the part both of the one who can forge ahead doing "two years' work" in one and on the part of the one who needs extra time to acquire a satisfactory mastery.

With changes in school population, there is being developed a new program of mathematics for cooperative or industrial art groups based on problems growing out of vocational elections or shop experiences. Such a course, which now seems to consist of reviews of much that was prematurely taught, suggests the need for a more complete reorganization of the mathematics of the elementary and junior high school. That program was built up on the assumption that all must be finished by the end of the eighth year because half of the children would by that time drop out of school.

8. It is significant to note with these changes a very material expansion of interest in the field of arts. Much of the development has been in the form of distinct contributions to the English, science, and social studies fields.

9. Like mathematics, the languages in the senior school suffered little change. Method and purpose in languages changed rather than content. The emphasis in both French and Latin is on ability to read with comprehension. Grammar is presented as needed in reading.

A combination of minimum assignments common to all plus enrichment assignments, depending on ability and interest, makes a year of Latin or French mean very little as a measure of achievement. The general practice is to carry students on into the two upper years — reading on whatever level of attainment one has reached. As a result, individual differences in the amount of work achieved are considerable: an average of 2,100 pages per student up to 4,900 pages in two years. This program places before the best students an opportunity, an encouraging atmosphere, and the needed guidance to do work superior both in quality and in quantity to that possible under earlier programs.

10. Since the change to the workshop type of activity, there is less need for formal classes; therefore certain administrative changes are implied. The schedule of regular appointments for

teacher and class has been reduced to two or three formal meetings each week. Other contacts are in incidental groups arranged by the students and varying in number to meet their needs. This seems to promise a very effective substitute for the traditional study hall, which to many was merely the place to go when one had nothing else to do. It is largely through this increased flexibility that we have been able to extend our opportunities in music and art.

11. Much of what was formerly called "extracurricular" is now recognized as essential educational experience. Especially in the subject field areas much has been absorbed into the regular classroom program, with a tremendously vitalizing effect.

12. The junior high school grades are contributing what seems to be one of the most significant developments in our program. The work of the seventh and eighth grades is built up about the community as a general theme. Most of the English, social studies, and science grows out of this program; much of the mathematics and arts is related directly to it, as is much of the school life, organization, assembly activities, etc.

The community theme, however, is not the most important element of this development. The real core of the program is to be found in the assumption of responsibility by a number of teachers for the entire program of education of a given student group. This responsibility is not the usual assignment by a subject teacher: "I will take the English, you the science." It is a joint responsibility—the group meets regularly to plan the whole program, to evaluate results, to replan. The students are regularly made a part of the planning process.

#### BUILDING A COMMUNITY <sup>1</sup>

The present program of the seventh and eighth grades is really a development of several earlier attempts to find some general organizing principle that would coordinate and tie together the work of the several teachers at this level. In 1935 the teachers

<sup>1</sup> In the following excerpts from the report of the Radnor High School we have preferred to include a full account of a few notable developments rather than a general account of the whole program. EDITOR.



of the seventh grade developed a series of units — "Adventures in Living in the Home and Community." Four areas under the general theme were singled out and placed for major emphasis in the care of as many teachers: Health, Leisure, Citizenship, Skill subjects.

Perhaps the greatest development took place in health. An attempt was made to coordinate the efforts of the teachers, the community, the physical director, the medical inspector and nurse, and the home. In other fields there was too little felt need for cooperative planning, or perhaps we were too inexperienced in such cooperative techniques to make our early attempts really successful. This first program, with some modification, was followed with limited success through several years. The central organizing element seemed lacking or inadequate.

In the spring of 1938 a group of interested teachers took the third step in the evolution of our present seventh-eighth grade program. As an initial step, a broad, general plan was made for the entering seventh grade pupils. The plan held the nucleus of interest, activity, and, we believed, the necessary challenge for learning. As the program developed, the pupils as well as the faculty, realized the desirability of carrying the main theme or idea through the eighth grade. Thus a seventh-eighth grade curriculum has been developed.

The faculty works closely together as two units, one for each grade; and each member is vitally concerned with what is happening to the child in fields other than his own. These teachers may be specialists in the field of English, mathematics, science, and social studies, but primarily they are specializing in seventh or eighth grade personalities. They do the major planning of the core work and suggest the contributions which their respective fields can offer.

One of these subject matter teachers acts as chairman of the faculty group and stays with the pupil group throughout both seventh and eighth grades. She acts as the "coordinator," and with the cooperation of the entire faculty group guides the pupil's school experiences during the two-year period.

To give continuity to the pupil's seventh and eighth grade experiences, to enrich the subject matter curriculum by change

of personality, and to help keep the subject matter contributions from becoming static, one or two of the subject matter teachers continue with the pupil group from the seventh into the eighth grade.

In so far as scheduling has permitted, the subject matter teachers are also the home room and workroom teachers for the various sections. This gives our core group of teachers the opportunity to see the child in many types of experiences and situations.

Although there is no body of subject matter superimposed in any way on the seventh and eighth grades, and although the teachers of these grades do not make subject matter the ultimate end of the program, we do not disregard the subject matter or departmental lines of our junior-senior high school. Teachers of the seventh and eighth grades attend departmental faculty meetings, help to formulate policies of their respective departments, interpret the program, and arrange for classroom visitation. As a result, the program has had the active cooperation, enthusiastic support, and marked interest of most of the members of the upper school faculty.

Two periods during the morning session are set aside each week for faculty group meetings—one for the seventh grade group and the other for the eighth grade group. The coordinators attend both meetings, and interested faculty members who are in no way connected with the program frequently attend a seventh or eighth grade discussion group. At this meeting the teachers report progress, plan cooperatively, exchange views, discuss pertinent pupil and curriculum problems, and formulate policies. This meeting is conceded by every member of the faculty to be the important part of the whole program.

#### THE SEVENTH GRADE PROGRAM

##### *Becoming Aware of a Community*

The first unit of work is planned largely by the teachers and requires approximately three months. The purpose of this block of work is to orient the pupils—to acquaint them with new surroundings and personalities, to awaken an interest in their environment, to create an awareness of the meaning of com-

munity living, and, through many individual, self-directed assignments, to develop initiative and the desire to explore the unfamiliar. Stimulation of the imagination, too, is of vital importance if the work is to be valuable as a springboard for the work which follows.

Our first unit of work deals entirely with Radnor Township—our own political unit. The township itself is our laboratory. During the study of the community our pupils become aware of the meaning of “community” and how it happens to be. The coordinator initiates the problem and draws from the pupils the broad, general divisions of study. From core, the pupils go to the various subject-matter teachers. In this first unit no study is a thorough, detailed one. Teachers are concerned with the broad, general aspects of the community. We touch every topic of community life which we anticipate will be studied in detail during the next two years.

*Core.* Any activity which makes a pupil aware of his environment may be used in core as a starting point for this community activity. The simple question “Where do you live?” can well be the initial step. Draw a map of your community and locate on this map your home, neighborhood grocery store, library, church, and school. This is indeed a challenge to the pupil. It surprises him to be confronted with many details which he does not know about his immediate environment. He is ready to consider the question: What is my community?

1. *Social Studies Contribution.* The social studies teacher asks: “How did Radnor get its name? Who settled it? How long has it been in existence? Why did the people choose to settle here? How did the Conestoga Road get its name?” To answer questions such as these, the pupils with the social studies teacher plan trips; explore old, historic centers; invite historically informed citizens into the classroom; plan with the local newspaper to have students spend many periods in the “morgue” of the local newspaper building learning the history of their community.

2. *Science Contribution.* What is the climate of my community? How can I predict the weather? How does weather affect my community? What physical conditions attracted the

early settlers in this section of the United States? Where does the township get its water supply? These are some of the important questions which direct the science contribution. In the solution of these problems, the pupils learn the topography of their home environs and the weather conditions which exist. They further develop an appreciation for the foresight of the early settlers of their community.

3. *Mathematics Contribution.* Concepts of size and distance and the relationship of numbers are learned through studies of community population, distances within the township, population of schools associated with our own athletic league, or recordings of scores and average of sporting events of interest to the pupils. Road maps to aid understanding of our environs are secured from local gasoline stations. Much of the material which the pupils acquire is used to illustrate talks and reports in various situations. These reports necessitate the making of graphs of various types to clarify ideas or present statistics effectively and interestingly.

4. *English Contribution.* English plays a dual role. It is used as a tool for the expression of ideas and the stimulation of the imagination. Letters are written inviting speakers to the school, asking for information, making arrangements for trips, or expressing appreciation for services. Letters, as well as other writing, require exactness. This need motivates spelling, penmanship, and correct usage.

Wide reading is encouraged. Pupils secure books from the community and school library. Guidance is given, but the pupil is free to make his own selections. We try to direct the pupil so that he will read on his level of ability and derive enjoyment from his reading. Because we are eager to have the pupil's imagination stimulated, we surround him with books of bold deeds, high adventure, and other life experiences with which the student will identify himself.

### *Planning the Physical Aspects of Our Community*

As an outcome of this first unit of work, the pupils launch a project of building a community of their very own. Although an imaginary one, it nevertheless becomes real to them. "Estab-

lishing One's Self in a Community of One's Very Own" now becomes the central theme for the entire seventh grade year. The idea of a community has by this time become familiar to the seventh grade pupil. During the past three months he has been made aware of being an integral part of one. Because the idea of a community is a big problem with which to grapple, it seems an appropriate vehicle for the young adolescent. He enjoys manipulating the big. It offers him a challenge. In so far as each pupil can identify himself with the project will the work be interesting, meaningful, and worth while.

*Core.* For weeks the pupils have been motivated by possibilities of improvement within their own community. Their civic consciousness has been awakened and encouraged by each teacher. They are ready for constructive activity. Since they are young and their community is adult-directed, their own efforts and desires are now guided into the possibilities of establishing their own—one in which they can plan, organize, and live. Each of the four sections within the seventh grade now formulates its own plans to build its own Utopia. The questions of importance in core now become: What type of community shall we have? Where shall we locate it? What size shall it be?

1. *Science Contribution.* Science, in anticipation of the pupils' decision to know something of the United States, had gone from its home geography of the first unit into a type of geographic survey of the United States. Why people have settled where they have, types of communities in the United States, and the relationship between geographic location and making a living have been studied in groups and committees.

*Core Again.* In core, committees are now formed to present ideas concerning the type of community to be established. Pupils who desire a resort community form one committee; those who wish to establish an industrial town form another committee, and so on. Each committee brings together its information. A speaker is selected. He presents to his entire section his group's reasons. He tries, of course, to be persuasive. He uses displays, opinions of adults with whom members of his committee have talked, and his findings through reading. He draws heavily upon the information he has acquired in his science class. When each

committee has reported, a vote is taken. The decision is final.

The second core question now arises: Where shall we locate our community? The same procedure is used as was used in the selection of a type of community. The group secures maps from every available source. They may even write to the state capital in which their town is to be located; they tell the state department something of their plans and their reasons for desiring to locate in the particular state; they have the assurance that there is available land in the particular spot they desire.

The time that has been scheduled for core is now devoted to the building of the community. Problems which arise in the community or core motivate and give meaning to the work of the subject matter specialists. In so far as possible the pupils go from core to their teachers aware of a need to develop a skill or in search of information to solve a particular problem. The pupils return to core and use the skills acquired or the information gained in the solution of their own problem. Teachers must, of course, work very closely together and constantly check back and forth. Each must know what the others are doing.

### *Planning the Organization of the Community*

*Core.* After the community location has been decided upon and a name has been selected, the need for government arises. Up to this time the core teacher has been directing the meetings of the group with some pupil assistance. The next question to be answered is: How shall we govern our town?

1. *Social Studies Contribution.* To learn how cities are governed, the pupils go to the social studies teacher. He directs their study of city and town governments. He strives to be neutral. After a somewhat detailed study, the pupils return to core and vote upon a form of local government. Speeches are made in favor of a particular form; reasons are demanded by fellow classmates; a vote is taken. In the two years, three groups have selected the town meeting form of government, three the commission plan, two groups the city manager plan, and one group the mayor-council.

How shall we plan our town? While the pupils in core are setting up such necessary machinery of government as making

nominations or forming platforms, the pupils are studying city planning in social studies. When they have grasped the ideas involved, the pupils in core plan their city.

The problem of zoning arises. What is zoning? Why is it necessary? How are towns in our own neighborhood zoned? To learn about this topic requires sending for pamphlets on zoning to county, state, and federal sources, and necessitates trips to our local township office. Various books in their social studies classroom and the central school library are perused.

Our local community is studied from a new angle. In the first unit of work the pupils merely became aware of the many aspects of their community. Now the pupils must have information concerning a problem of their own. The subject matter teacher directs his pupils so that they use their actual community to learn how things are really done. If the local practice is good, it may become incorporated in their new community.

2. *Science Contribution.* The science teacher is confronted with many questions which arise when a community is initiated. He must help answer such questions as are involved in water supply, power, fuel transportation, and topography. Much information which a chamber of commerce might use grows out of these studies; the citizen must know his own environs well and interpret them to others so that people will be interested in visiting or settling in this newly established community.

3. *Mathematics Contribution.* Map making, zoning, real estate development, taxes, road building, power lines, and construction work demand skill in mathematics and motivate the development of many mathematical concepts.

4. *Art Contribution.* Art is a necessity in community planning. Posters for advertising, building design, and theatre sets give scope to the teacher, satisfy individual needs, and broaden the concept of art for the pupils.

5. *English Contribution.* No American can conceive of a community without a newspaper to convey news, formulate policies, entertain its citizens, and advertise its enterprises. The idea is approached in core. In English a newspaper is discussed and planned. Newspapers of our neighboring towns are studied and the purpose of each discussed. Writing editorials, news columns,

or literary material gives purpose to composition. Typing and operating the mimeograph machine are looked upon with favor. In anticipation of the need, fortunately, a group of pupils who possess typewriters have acquired some skill in typing. Although they are not ready to launch upon the typing of stencils, they attempt it with some bravado and much caution. Many mistakes are made. The paper, however, emerges.

By the middle of the second semester the pupils have a community of their very own. It has become a part of them. They have located it, named it, organized a new functioning government, named its streets, and decided upon its public buildings. Decisions are now made by the citizens, and discussions are held in what is known as a town or council meeting.

### *Planning for the Enrichment of Our Community Life*

The citizens of the newly established communities are now ready to consider activities within each town that will lead to the desirable use of leisure time. Hobbies should be developed and new interests encouraged. The cultural life of the citizens should be fostered. Teachers and pupils discuss the possibilities of exploring new fields and further developing worthy existing interests. Many clubs are formed. Of course, these clubs vary with communities and groups within communities. The length of life of a club, too, varies with the type of membership as well as with the program. Some of the clubs which have been formed and the departments which have sponsored them are:

*Social Studies.* Crime Detection and Prevention; Current Events.

*Science.* First Aid; Health in the Home; Bird Life.

*English.* Poetry; the Medieval Period in Story.

*Mathematics.* Investments; Banking; Government Finance.

### *The Community Meeting*

Long before the end of this first year of the community (in the seventh grade) each local group or community has established a type of public meeting that meets the need of the particular type of community. This meeting is an outgrowth of the local government and might take the form of an open coun-



cil meeting, a purely democratic meeting, or an open meeting of the town commissioners. A meeting of this type is held from three to four times each month during a core period. The chairman, of course, depends upon the local type of government and might be known as the head selectman, the mayor, moderator, or chairman of the council. We have felt that this local meeting (grade section) gives an opportunity to each group for: (1) acquainting the entire community with small group or individual projects or activities; (2) creating a desire for new and necessary activities or projects; (3) building public opinion in favor of some desirable project or event; (4) planning for new work which is of interest to the entire group; (5) exchanging opinion among citizens of the community, adult specialists (visitors) in various fields of endeavor, teachers who advise and guide, and interested visitors from other communities in the grade or adults outside of our school community; and (6) giving a public accounting of the progress of the work of the entire community.

Because this group meeting is actually the place in which much of our pupil-teacher planning is done, great importance is attached to it. Many teacher-pupil conferences precede the meeting. Free discussion is encouraged and true opinions sought.

#### THE EIGHTH GRADE PROGRAM

Although a continuous program of seventh and eighth grade work was not anticipated by the faculty or pupils when the community project was initiated, the two-year span now seems the natural unit. At the end of the seventh year there are many unfinished projects and numerous unsolved problems. Pupil interest is high. We have found it desirable to have the pupil leave for his summer vacation anticipating taking up his interrupted work when he returns to school in the fall.

What is the state of affairs in your community? What has been completed? These questions confront the groups in their first town or council meetings upon their return to school in the eighth grade. Pupils, in response, summarize and re-establish in their minds the work of the preceding year.

What is the next important piece of work to be accomplished? This question gives rise to discussion. One group thinks the citizens should decide upon vocations; another group believes the homes in the community should be planned. Teacher-pupil discussion follows and plans evolve. Because of the type of work involved in planning homes in the community, we have found it is more desirable to plan our homes first and later decide upon our occupations. This, of course, is not a logical approach. We have tried to have the work follow pupil interest, however; thinking in terms of money for homes and furnishings gives rise in the pupils' minds to the need of an income to meet the demands of an enriched life and a desirable standard of living. With our present group of children, the establishment of homes followed by the choice of vocation seems a satisfactory and desirable approach.

The three broad fields or areas of exploration in the eighth grade tend to be: (1) meeting the problems of establishing and maintaining a home, (2) meeting the problems of selecting and establishing one's self in a vocation, and (3) becoming aware of our interrelationship (as citizens in our community) with the outside world.

### *Planning the Homes of the Community*

*Core.* In core, real estate groups form and divide the town into desirable building lots. This activity usually upsets "well-made" plans of the first year's zoning committee. Many discussions and decisions on the part of the citizens result. Typical problems are: Shall we have a minimum cost for houses in Zone A? Should small parks be scattered throughout the residential section? How far from the center of the street should houses be placed?

Planning homes that can be "felt and seen"—something concrete—is a problem that must be discussed with the group. The plans must meet the approval of the pupils and be the result of their thinking. The child's thinking must be so guided that the experiences which result will challenge each individual's ability, meet his interests, and give him satisfaction. One group's thinking and planning resulted in the following: (1) deciding

upon a temporary occupation and income satisfactory to the individual as well as the group; (2) deciding upon the price to invest in a home, or upon the amount of rent the individual is willing to pay; (3) selecting a satisfactory location; (4) planning a home to scale; (5) selecting color schemes for individual rooms; (6) buying the furniture and other household equipment (keeping within a budget based on income); (7) enlarging each room (to scale); (8) arranging the furniture in the rooms; (9) selecting such items as books, magazines, and pictures to satisfy intellectual and aesthetic needs; (10) making a circle graph to depict expenditures by rooms or groups of items; and (11) presenting the whole in a manner that reflects the personality of the owner or tenants of the home or apartment.

Planning homes is a complex problem; activities within this unit demand many skills, and the development of varied understandings and appreciations. The contributions in the fields of science, social studies, home economics, mathematics, English, and art are numerous and varied.

1. *Social Studies Contribution.* In social studies the interest centers in the solution of such problems as: What are average incomes in the United States? Should I buy or rent a home? How should real estate be evaluated? What should be considered in deciding upon a residential location? How can I borrow money? What do I pay for borrowed money? What are cooperatives? How can I protect my home? My family? What kinds of insurance do I need?

Solving problems such as the above requires research in standard practices. Pupils send for pamphlets and catalogues. They are read and analyzed. The findings are discussed. People who are experts in the special field of interest are invited into the school to talk with the pupils. Trips to stores or business offices are frequently made.

2. *Science Contribution.* Science deals with the construction of the home, modern materials and equipment, heating, ventilation, lighting, and the beautifying of the exterior or landscape gardening.

Each section of the grade, of course, need not follow the same procedure, and each group will no doubt find a different point of

major interest. Committees are formed; trips are made to housing projects; newly constructed homes are visited and discussed; magazines, catalogues, and pamphlets are utilized for reference material; and contractors and architects come to the school to discuss topics of interest with the pupils.

3. *Home Economics Contribution.* The teacher of home economics now plays an important role. Placement of furniture, color and its effect upon people, color schemes for rooms, selecting and buying furniture and other home equipment for varying income levels, are topics for discussion. Decisions must be made when the pupil feels he has the necessary understandings.

4. *Mathematics Contribution.* Mathematical skills must be acquired and concepts developed if houses are to be planned, budgets made, and money spent. Problems involving mensuration, budgeting, and percentage are important. Problems and activities are so planned that the pupil will have an opportunity to use newly acquired mathematical concepts and skills in many and varied situations and at recurring intervals.

5. *Art Contribution.* Art is concerned with the beauty and attractiveness of the home. Making designs for wallpaper for particular types of rooms and homes, designing decorations for dishes, and selecting pictures for the rooms stimulate creativity, foster an appreciation of art, and stimulate a desire to acquire the knowledge of great pictures. Designing types of furniture and studying trends in architecture are fascinating activities to many of the pupils.

6. *English Contribution.* Pupils have been reading books of various types. A selection must be made for a home library. A good library should have books for every mood and books for every need. Before a book is selected for a library, the person who makes the selection should have read the book. He is held responsible for the inclusion of all books selected for the home.

Magazines, too, are considered, examined, and evaluated. They are an interesting study and motivate various types of reading. What magazines are published? For what type of individual or what group of people is the magazine published? Is there a magazine that will meet the need of each member of the family?

Perhaps a group of pupils find an interest in editing and publishing (mimeographing) a magazine to which any member in the community may contribute. This publication draws upon the pupils' reading for such articles as book reviews and criticisms as well as upon his creative writing for stories and verse. One group published a magazine which contained "something of interest for every member of the family."

### *Planning the Economic Life of Our Community*

*Core.* The second big block of work during the second year of the community is exploratory in the field of vocations. Choosing a vocation becomes the important problem to each individual in the community.

1. *Social Studies Contribution.* Opportunities and trends in occupations, desirable training and preparation, necessary qualities in personality and character, financial remuneration, and important equipment are topics which are studied by interest groups and committees in social studies. In the exploratory period the child projects himself into a vocation and keeps an imaginary diary for several days. Class discussions lead to such topics as social security, labor organizations, and income tax laws.

2. *Science Contribution.* What are the possibilities for industry in our community? Although this question has been touched upon during the early part of the seventh grade when the pupils were selecting a location, it is now attacked from a different angle and is studied more thoroughly. Pupils in groups select a few desirable industries and learn what factors—geographic, economic, and social—determine the desirability of starting an industry in the particular community.

To become acquainted with the processes of various selected industries the pupils experiment with the manipulation of simple processes which are an integral part of the selected industries. Factories, too, are visited; materials distributed by industries are collected, studied, and discussed.

3. *Mathematics Contribution.* Financing the preparation for many vocations and learning about the overhead expenses of carrying on these vocations are problems which concern mathe-

matics. College and professional school catalogues and hospital bulletins are utilized; salesmen's traveling expenses are considered. Ways to finance local industries are discussed, and capital, stocks, and bonds are considered.

*Core Again.* After the pupils make their decisions as to choice of vocation and type of preparation, ways to record and preserve this information and give honor to the pioneer citizens and their accomplishments are discussed in town meetings. A mimeographed book, usually planned by each group, presents various community activities, maps, cartoons of each individual, a description of each person, the individual's choice of vocation and special preparation for it, and a list of the activities in which each citizen has participated during the entire two years. The book has been found to be most worth while and enjoyable. Each pupil keeps one so that he will have something tangible by which to recall his community accomplishments.

### *Becoming Aware of the Interrelationship of Our Community to the World*

To give the pupil an awareness of interdependence, we have planned the final block of work in the two-year unit. This study is approached from the standpoint of the hypothetical community with which the child has identified himself. It aims to have the child become aware of one local group's responsibility to a larger group and the larger group's responsibility to its smaller component parts.

*Publications.* As in any typical community, the activities and the breadth and depth of interest in these activities are as varied as the individuals who comprise the group. Some groups publish a newspaper periodically throughout the two years; other groups find one publication a supreme accomplishment.

*Radio.* One of the projects which is of major interest in every community is the radio broadcast. Each group has its own studio and sending station, its call letter, and theme song. Frequent programs are broadcast. These programs draw their offerings from many sources: quiz programs of various types utilize material from social studies, art, music, home economics, English, and mathematics; dramatic scripts are frequently adaptations of

parts of books which are being read; commercial advertising scripts are written for or by the sponsors of parts of the program.

*Band.* An intercommunity band is another popular activity. This musical group participates in many types of community activities and plans fanfare to focus interest and add variety.

*Business Concerns.* To care for economic needs of members of the group, banks, building and loan companies, financial loan companies, and insurance groups have been organized. Stocks are sold and bond issues floated.

*Parent Programs.* To present and interpret the communities and community life to the parents, special programs are arranged by the pupils and teachers. Slides are sometimes made by the pupils illustrating locations, city planning, public buildings, homes and gardens, and various community interests. As the slides are projected, pupil commentators explain and interpret. Emergency town meetings, radio broadcasts, and band numbers help the pupils to present their community interests.

*Intercommunity Meetings.* As an outgrowth of the desire to share mutual pupil interests, a second type of meeting has been a continuous two-year group experience. The communities and the faculty advisers meet in joint session in the school auditorium. A pupil chairman presides; a pupil secretary records and reports; pupil executive committees with teacher guidance steer the course. The officers are elected by the group. The executive committee has representatives from each community who are appointed by the chairman or elected by the local communities.

The purpose of this intercommunity meeting are largely to: (1) foster group unity; (2) discuss problems that affect the entire group; (3) share community accomplishments with other interested persons; (4) acquaint the entire group with the interesting activities in any of the four communities; (5) stimulate desirable activity; (6) give an opportunity for individual development through participation in a large group.

The group offerings have been varied. Communities have presented plays, broadcast radio programs, discussed ideas which have resulted from trips that have been made, and sponsored reading and spelling contests. Individuals have an opportunity

to present a problem that affects the entire group. Typical topics which individuals or small groups have presented are: (1) behavior on bus trips, and (2) selection of a leader.

#### EVALUATION

Evaluation of any program is difficult. We try, through yearly standard tests, to evaluate the pupil's ability to read, his skill in arithmetic, his ability to reason in the field of mathematics, his general accomplishment in science and social studies, and his English usage. We know these tests measure only a few of the outcomes which are considered important in any of the subject matter fields. The habit of reading desirable books; active interest and critical evaluation of current, local, and world happenings; intelligent inquiry into the world of science which surrounds us; ability to think clearly, organize thoughts, and present ideas effectively and interestingly—these are a few of the goals toward which we strive. Although we fully realize that we can reach these goals only in varying degrees, and although we know these goals can be measured objectively only in part, we agree that, from our standard tests, our daily observation, and our classroom tests, the results are sufficiently encouraging to merit our continued efforts in the present type of curriculum.

Opportunities are innumerable for pupil growth in such traits as initiative, responsibility, cooperation, self-direction, independent thinking, and intelligent curiosity. Measuring growth in these areas is difficult and not always objective. Although we evaluate pupil growth in terms of performance as we observe the pupil in his whole school life, we fully realize that the results of any program can be measured only by the performance of the individual as he takes his place in school in each succeeding year and as he assumes his place as a citizen of his community.

#### THE COOPERATIVE COURSE

In the past few years economic conditions and new attendance laws have made us more conscious of the necessity of providing a curriculum that will adequately prepare noncollege pupils to



enter our postschool society after graduation. In the past we have not been particularly concerned with their later economic existence; our immediate problem was to see them graduated.

The practice of lowering standards to permit "passing" in the regular courses seemed futile since it evoked no interest or enthusiasm from the group and contributed little to the development of skills or specialized interests needed in later life.

In order to cope with this situation, Radnor High School in 1938 laid the groundwork for a new senior curriculum to be known as the "cooperative course." The purposes of this course are:

1. To provide "tryout" training opportunities for each pupil in one or more vocational fields.
2. To develop related skills, attitudes, and knowledge that will contribute directly to vocational competency in pupils' chosen fields.
3. To promote in the pupil a better understanding of and adjustment to the economic world into which he is about to enter as worker and consumer.
4. To assist pupils in finding jobs for which they are preparing.

The plan evolved called for two weeks in school and two weeks on some job for each pupil. This required the consent and continued cooperation of local industrialists and merchants who subscribed to our plan.

We hoped that such practical experience would at least serve to confirm the boy in his choice of lifework or to definitely steer him away from a poor choice. It might do more. It might provide an introductory type of training that would serve in a measure as the equivalent of an apprenticeship in the field. It might make the student more keenly aware of the type of training and the personal qualifications necessary. Moreover, the contact would put him in touch with one successful member of his chosen trade or profession—one who would be interested in him, at least to the extent of becoming an adviser in his further training.

From the standpoint of the employer it necessitated his creating at least a part-time job where one did not exist. He or one of his workers would have to devote a portion of his time to the

training of the apprentice, whose work would need constant personal checking.

Periodic reports were to be made to the school concerning the pupil's native ability; his progress, adaptability, initiative, politeness, ability to get along with fellow workers; his willingness to take advice and orders, ability to work independently without waiting for suggestions, and desire to learn and advance.

Response from manufacturers and businessmen was extremely gratifying. With few exceptions they agreed to cooperate in giving pupils an opportunity for definite vocational tryouts, in assuming obligations to train them, and report their progress to the school.

For the pupils the choice between the general and cooperative courses was optional. The plan was presented to all members of the general or noncollege group in the spring of their junior year, 1938. Of the 60 members, 28 elected the cooperative course. These made known their first two occupational preferences. Choices covered a wide range, from the relatively simple general clerking to something as complex as patternmaking.

During the summer months pupils were given an opportunity to make their own contacts and get placed by the September term of their senior year. Two of the group placed themselves; positions were found for 22 others. It was impossible to find employment for the remaining 4 in the occupations of their choice.

The task of the classroom teacher was to make programs elastic enough to allow the pupils to spend alternate two-week periods out of school and to rearrange the work in school to insure continuity in the whole year's course.

A member of the administration was designated to devote considerable time to routine affairs. These included contacting businessmen to find available apprenticeships, visiting pupils at periodic intervals on the job, interviewing employers to determine the learner's fitness for and progress in the job, making readjustments and transfers for those not properly placed, consulting parents of pupils and checking both academic and vocational reports.

We realized that the employer would suffer a certain incon-

venience during the two-week interval the pupils were back in school. Hence a program was developed whereby pupils wherever possible were paired in various vocations; alternating two weeks in school with two weeks in industry, each pair held down one full-time job.

### *Related Work in School*

This new program demanded the revision of some old and the development of new subject materials. The selection of these materials was determined by the type of work being done outside of school. This called for individual treatment involving conferences of teachers and of teachers and pupils to see what the school could best contribute to vocational competency. The plan evolved included trips, interviews, lectures, practical shopwork, cooperation with other departments on individual projects, and a survey of available sources of information.

The curriculum changes made throughout the year were an outgrowth of this study of student needs. Problems encountered on the job served to motivate theory in school and led to immediate practical applications. The following brief outlines attempt to throw some light on the type of subject matter utilized in the four major fields: social studies, English, mathematics, and science.

*Social Studies.* The work in social studies aims to develop pupils into effective producers, intelligent buyers, and good consumers and, in addition, to prepare them to meet obligations to their community, employers, fellow employees, and themselves.

To this end the students made an analysis of their chosen occupations with reference to personal fitness for the job, length of preparation, possibilities for advancement, average income, seasonal layoffs, unionized occupation, inclusion in social security, private pension plan, general working conditions, and contribution to the public welfare.

This was followed by a series of six study units—three related to jobs and working conditions and to low-cost housing, three designed to help pupils live fuller and more profitable lives.

1. *Labor and Capital.* The function and advantages of labor unions were surveyed, including the means by which they plan

with employers or bring pressure to bear upon them to gain greater recognition in bargaining.

2. *Social Security.* A study was made of this form of insurance in conjunction with the Mathematics Department. Pupils saw that the security given to workers, in the event of old age, disability, or unemployment under this plan, allowed them to retain self-respect and individuality rather than become public charges. The cost of such insurance was compared with that of commercial companies; corresponding clauses of different contracts were also analyzed.

3. *Housing.* Housing was studied to show that individuals in low income groups could become homeowners and that this possibility was an added incentive for systematic savings. A comparative study inquired into the relative advantages offered by government as against private companies in long-term financing.

4. *Hospitalization.* Through recently developed contracts, either with nonprofit or with commercial organizations, it was found possible to safeguard health at a nominal figure—thus eliminating financial worry, which frequently prolongs the period of convalescence. Financial obligations can be met while at the same time institutional care relieves relatives or friends of serious burdens.

5. *Public Opinion.* Propaganda and the news were analyzed for the purpose of recognizing and assaying at their true worth lavish statements, half-truths, distorted facts, extravagant promises, and exaggerated information. Using the seven devices of propagandists, we reviewed recent operations of lobbyists, commercial organizations, and “war guilt” statements and statistics on victories and losses of warring nations. Political elections and public questions, such as Senator Pittman’s Neutrality Act of 1939, were studied. This unit, done in conjunction with the English Department, involved news analysis of 23 newspapers from every section of the country.

6. *Intelligent Buying.* This unit was designed to teach students how to get “value received.” The study of food values, budgeting, off-season buying, etc., was a principal project of the Science and Domestic Arts Departments as well.

*Mathematics.* The mathematics in the cooperative course falls

into two divisions: that in which the whole class participates as a group, and that designed for each individual according to his needs.

With the 1940-1941 group it seemed advisable in the fall to start with a review and drill of the four fundamental processes in whole numbers, fractions, mixed numbers, and decimals. From October to the end of January mathematics was individualized.

In February the class started to study insurance of all kinds, including social security. (At the same time, the social studies classes began a discussion of the economic and sociological aspects of insurance.) Life, accident, and health insurance; fire, burglary, and automobile insurance; public liability; hospitalization; social security (old-age insurance, unemployment compensation, and workmen's compensation)—all were taken up in turn. Various forms of life insurance—straight life, period payment, endowment, annuities, family trust, and social security—were studied individually and comparatively. Protection versus investment was given a thorough going-over; taking a certain amount as a premium, the class found out how much of each could be bought.

An attempt was made to individualize a part of the program on the basis of vocations chosen. For instance, the auto mechanics studied ratio and proportion and the reading of micrometers; the plumbers studied mensuration and job estimating.

*Science.* The cooperative group is now scheduled separately. Students are given a chance to select those topics which they feel will be most interesting and helpful. These generally are concerned with the problems of the family car and the use of common household appliances, chiefly electrical. The following brief descriptions of three units will show the method of covering the material in science.

1. *The Automobile.* This unit was divided into four projects as follows:

- a. Construction and Operation. We used physics textbooks as source material and, in class, discussed important principles, using a Chevrolet motor for demonstration. (While the boys were working on this, the girls had outlined and covered a unit on Food Content and Food Analysis. They preferred

this rather than the technical construction of the car, which the boys found most interesting.)

- b. Care of the Car. Individuals collected personal experiences, studied instruction books furnished to car owners, and read magazine articles. Findings were covered in class discussions.
- c. Safe Driving. We made a study of the Vehicle Code of Pennsylvania, took examinations on information included, and made up imaginary situations calling for judgment on safe driving.
- d. Selling Points of the Modern Car. Students visited salesrooms, interviewed salesmen, collected opinions of friends, analyzed the questionnaire put out by General Motors last year, and gathered available information on car construction and improvement. They then divided into groups, each group developing a sales talk on a scientific basis to sell their car to the other groups. This was done in class discussions. The findings of the General Motors Questionnaire were also discussed and checked with their own vote.

2. *The Use of Electricity in the Home.* The unit was covered entirely on an individual basis. In several periods of general discussion the important fields were selected and outlined. The various topics were then individually assigned. Following is a list of the projects completed:

- a. A chart showing an analysis of initial cost and operating costs of common electrical appliances used in the home.
- b. Designing and building a model of a typical small house; placing the correct wiring throughout the house to show how a house is wired. (Wiring was also drawn on diagrams of the house layout.)
- c. Display of the types of wire, insulators, outlet boxes, switches, etc., used in the wiring of a home.
- d. Electric clock dissected and parts displayed on a board.
- e. Electric motor dissected and parts displayed on a board.
- f. Large model of dials on a kilowatt-hour meter.
- g. Large board with partially dissected electric iron, toaster, hair dryer, razor, tie presser, and unusual types of electric lamps.

- h. Board with two-way and three-way switches, transformer, doorbells, floor plugs, and fuse block—all correctly wired so that operation of the circuits can be observed.

The final unifying of the material was accomplished by having the group present their work to another class in a full-hour program.

3. *A Study of Local Industry.* This final unit called for the following procedure:

- a. A general discussion of the importance of industry in the Philadelphia and suburban area; the part that science plays in the development of each industry.
- b. A survey showing on a map the location of each industry in the area—this to be done from data collected individually.
- c. An analysis of opportunities for jobs in the various industries, the training required, the opportunities for advancement, etc.

*English.* The approach to the study of English in the cooperative classes is conditioned by the fact that most of the pupils are employed intermittently in stores, factories, offices, etc. Evidences of how this fact has produced differences from the regular work in noncollege classes follow:

1. Much of the work has a direct connection with the work done outside school. Thus nearly all written exercises—letters, diaries, stories, descriptions—reflect actual experiences. The same is true of speeches and discussions.

2. All classwork is done under the influence of the ideal of “practical value,” giving this term width enough to include moral, social, economic, political, as well as utilitarian, considerations. Thus the reading of a play like *Liliom*—dealing with the life and problems of the working class in Budapest—involves a good deal more than academic interest.

3. The fact of having a job or looking for one provides a natural motivation that is lacking in “ordinary” class situations. This is especially apparent in the development of skills and abilities which will aid in getting, holding, and advancing in jobs. English usage, poise in public speaking or conversation, personal appearance, manners—objectives such as these have unmistakable value for these pupils.

4. Newspapers, magazines, and other current reading material assume a special importance for these classes. An interdepartmental unit on Public Opinion<sup>2</sup> involved the study and comparison of 23 outstanding newspapers from all over the nation. Current dailies are often used as bases for oral and silent reading, discussion, vocabulary work, spelling. Similar use is made of the students' subscriptions to *Scholastic*, the national high school weekly.

5. A very large percentage of the work results from pupil-teacher planning—much larger than in the case of other sections, college or noncollege. In college sections there is much "must" material; in noncollege sections of the conventional type, pupil indifference or lack of knowledge of what is valuable often acts as a deterrent to pupil-teacher planning. In cooperative groups there is none of the former, less of the latter. The result is an *esprit de corps* which makes classroom work informal, interesting, and meaningful.

This program, we think, should include some introductory work in the year preceding the cooperative year—field trips in the tenth and eleventh grades, contacts with a variety of business and industrial establishments as a basis for later choosing, and finally a discussion of jobs, job opportunities, workers, and work qualifications. During this preliminary period, as well as during the cooperative year, we think the school must be responsible for a general preparation in attitudes and work habits. We must foster initiative, willingness, loyalty, responsibility. We think that these can best be developed in connection with job experiences and in field trip experiences. This implies an analysis both by the individual and by his teacher—a sympathetic study of the student's capacities, his interests, and his school and life program. We are endeavoring to make the pupil's experience in his senior year of high school contribute as directly as possible toward his chosen vocation.

### Some Questions Remain

In the third year (1940–1941) of this experimental program we were still troubled by serious questions.

A study of the occupation fields into which we have sent one

<sup>2</sup> See page 573.



or more learners reveals no equality in richness of learning opportunities. Those of auto mechanic, tailor, machinist, plasterer, shoemaker, plumber, secretary, patternmaker, and most of the other 28 seem acceptable. But what about trucking, delivery service, store clerking, house painting, and gas station work? In several of these cases we have found that merely having a part time job was a factor in the situation; the final decision probably hinged on the fact that the only other alternative for the boy was a full-time job and no school at all. To what extent the job is a learning situation, and for how long, in each case depends not only on the job but on the ability or capacity of the worker. We are concerned with these differences in value but find it difficult to eliminate them.

We are concerned, in the second place, in developing more skill in the selection and organization of the related in-school work. Some of it is properly and rather easily directed toward the job in question. Sometimes mathematics (drafting), sometimes science, has such direct application to the needs of the pupil on the job.

From 1938 to 1940 the program was open to seniors and, as exceptions, to a few juniors. But we realize that it is not really a problem of grade, but one of age and readiness, or need, to discontinue formal schooling. Therefore, in 1940-1941 we opened the opportunity to any average boy of the senior high school, or even to the occasional seventeen-year-old in the ninth grade who is planning, by another year, to "chuck it and go to work." This may, as a matter of convenience, involve the placing of such a boy with the twelfth grade cooperative group; but the in-school program for such a boy is probably already quite individualized and "special."

We are also concerned in solving the problem for the girls. Since they monopolize almost entirely the regular commercial course, the number of prospective cooperative workers among the girls is reduced. In spite of this fact, however, we have not been able to place all of the few who do apply.

### *Some Outcomes*

In the first two years of the program 48 pupils registered for the course. Of these, 44 were placed in cooperative learning jobs.

Four were not able to find openings in occupations of their choice.

Eight returned to the general course, 3 of them because of differences of opinion with their employers, 2 in order to accept afterschool jobs offering immediate compensation, 3 because they realized, after tryouts, that they had made poor original choices.

Occasionally we are successful in the negative fashion suggested above. A boy discovers that the job is not what he had hoped to find it. That is important. We can help him analyze himself again and try some other field. We think it well to discover this "square-peggedness" while he is still in school.

The school felt that the experience given this group, in the senior year, was a step in the right direction. The pupils quite generally appreciated the opportunity for an occupational tryout. This was proven by the zeal with which they attacked the work.

One teacher reports:

It was a delight to have them come and ask for information as to how to approach certain problems they were facing. In comparison with pupils in the general course, they showed a keener interest, a greater desire to learn, a steadier display of initiative and creative ability, because they had a new means of expression and a definite goal. Their goal was to do so well on the job that their employers would find them indispensable after graduation.

Other parts of the related training are concerned with producing better workmen in general, but the work takes on a new significance in such a setting as the job furnishes. Our staff—those closest to the problem—report that even those parts of the school program which have as their objective the making of better citizens and home members are approached with a sense of purpose and importance not always achieved with other groups.

Employers were cooperative from the start, not only in placing pupils, but in training them and reporting periodically to the school regarding their progress. In every case the opportunity provided displaced no regular employee.

This cooperative program, if it has any real significance for the public high school, is significant only because it concerns a small school. We cannot hope to be a vocational school nor to provide the highly specialized vocational courses or the specialized shops found in larger cities. We might justify the work if it

did no more than motivate the classroom work to the point where school seemed really important in the lives of those who seem most eager to "get into something real." If, in addition, it starts a boy on his first job with some understanding of what the workaday world expects of him and of the conditions he must encounter there, we have further cause for satisfaction. With the help of these cooperating employers, we are offering a type of vocational training that the school alone cannot hope to give. We want to make this program an attainable effective substitute in the small school for the vocational program of the large metropolitan industrial area.

# SHAKER HIGH SCHOOL

SHAKER HEIGHTS, OHIO

Shaker High School is a three-year public high school located at Shaker Heights, Ohio, a suburb of Cleveland. The building is brick, modern in every detail, located on a tract of 19 acres. It has a number of features which make possible a stimulating program of work for the pupils. A beautiful, well-equipped library of 12,000 volumes is affiliated with the Cuyahoga County and Cleveland libraries. This affiliation gives our pupils access to many thousands of books. Two auditoriums seating 250 and 1,200 persons, with motion picture and radio equipment, give unexcelled opportunity for group programs. A radio studio adjoining the small auditorium is a stimulus for speech work. Off the stage of the large auditorium are dressing rooms, a stage shop, and ample storage space for scenery and electrical equipment. A swimming pool flanked by two gymnasiums, and hockey, football, and baseball fields are the background of a strong physical education program. Separate clinics for boys and girls, and a medical staff of two part-time doctors and a nurse insure proper physical examination. There are four science laboratories, with provision for future expansion, and a music room. A well-appointed cafeteria, separated from the kitchens and serving counters, gives maximum use as a study hall or recreation room. The faculty enjoys a separate dining room, which is easily converted into a class, council, or recreation room. Student publications are well housed with files, typewriters, and sufficient desk space to delight the staff. One general shop, an auto mechanics shop, an art room with space for a pottery kiln, a rifle range, and the tests and measurements office occupy other ground-floor rooms. A suite of commercial rooms for typewriting, bookkeeping, and office practice is adequate for the numbers electing business training. Four deans, who devote part time to guidance, occupy offices at strategic points in the building. A general office and principal's office are spacious and complete.

*Clientele*

As Shaker Heights is a residential suburb of Cleveland, the clientele of the school is composed of business and professional people who have enjoyed cultural advantages and are interested in securing the same for their children. The activities of the Parent Teacher Association are mainly directed toward an interpretation of the schools to the community. The community helps to support a scholarship fund for deserving graduates. The greater majority of pupils, about 90 per cent, further their education in college or professional school after graduation. Even during the depression from 82 to 88 per cent attended college.

*Curricular Organization*

In the past the high percentage of college candidates had made it necessary to maintain a strict college preparatory curriculum for the major portion of the student body, although it was possible for a student to select another type of course. The faculty had long felt that the restrictions placed by the college entrance requirements decidedly hampered its efforts to liberalize the curriculum and to prepare students for life in a rapidly changing world. When the invitation came for Shaker High School to join the Eight-Year Study, the faculty eagerly accepted this opportunity to revitalize the curriculum and make the secondary school experience more meaningful.

The enrollment at that time was about 800 pupils in the tenth, eleventh, and twelfth grades. One-fourth of the incoming X-B class was selected to participate in the new curriculum plan and was organized into two groups.

Social studies, English, and art were the only required subjects in the new curriculum. Classes in English and social studies met for two 50-minute periods alternating on successive days, while one to three periods a week were given to related art studies. No textbooks were used in either English or social studies; instead, classrooms were made into laboratories, and extensive room libraries of both books and magazines were accumulated with the money not spent for textbooks. The social studies laboratory was a large room equipped with movable tables and

chairs, open shelves, display bulletin boards, a stereopticon, and dark shades. In all classes students were urged to draw upon sources of information other than books, to carry on independent investigations, and to engage in group projects and discussions.

In the first year of the Study, although students were given some freedom in the developing and following of their own interests, definite courses of study were planned by the teachers. English, social studies, and art were organized as follows:

1. Social Studies

*Tenth year.* The World as a Community

*Eleventh year.* The Nation in the World Community

*Twelfth year.* The Family in the Present Social Order

2. English

*Tenth year.* World Themes: Leadership and Social Justice

*Eleventh year.* The Pageant of America

*Twelfth year.* The Individual and His Relationships

3. Art

*Tenth year.* Art in Varied Relationships, Personal and Social

*Eleventh year.* Creative Arts: Relationships Among the Arts

*Twelfth year.* Survey of Selected Fields in the Fine Arts

Art in the tenth year consisted of illustrated lectures by the art teacher on topics selected in consultation with the English and Social Studies Departments, demonstrations by sculptors and painters, visits to the Cleveland Museum of Art, and self-expression on the part of the students. In the eleventh year there was a fused course in creative arts, described more fully in another part of this report.<sup>1</sup> In the twelfth year there was an art survey course consisting mainly of lectures on architecture, sculpture, and painting, most of which were given by members of the staff of the Cleveland Museum of Art. Dr. Thomas Munro, head of the Educational Department of the museum, conferred with the Art Department upon the organization of this course. During the last three years of the Study the course was directed by teacher-pupil planning. Art in the tenth and twelfth years was limited to one day per week; in the eleventh year the class met three times per week.

From 1933 to 1940 there was a gradual evolution of the original

<sup>1</sup> See pages 594-600.

objective of giving students freedom in the development and following of their own interests, with the result that in the later years of the Study there was much greater flexibility in the courses of study in English, social studies, and art. Basic structure and organization were kept, but the choice of subject matter within these limitations came to be the result of cooperative planning by students and teachers.

The work of the new curriculum was planned by all the faculty who were selected to participate in the Study. Every unit of work was carefully reviewed and criticized. Two luncheon meetings were held each week to discuss all phases of the work, and many other meetings at night and after school were held to plan the content of the courses. This has been one of the best outcomes of the study, for never before had there been such challenge to the thinking and planning of the group.

In the beginning, many meetings were arranged with the parents of the pupils included in the study. The object was to keep them fully informed as to the techniques employed and the reasons for certain changes. They had to be fully satisfied that the new methods and the content of the courses were getting the same or better results than the old. Because of pressure of the work, it was not possible to continue the meetings with parents in the same number as originally planned.

### *Administrative Organization*

As indicated before, two groups, approximately one-fourth of all incoming pupils in the tenth grade, were organized for the purpose of the Study and continued throughout the three years. The groups were selected for various reasons in order to get a cross section of the school. One group was average in scholarship and one above average, for the purpose of comparison. One year the most consistent workers were chosen, regardless of their intellectual ratings. Several groups had high intelligence quotients.

The flexibility permitted by the new curriculum experiment made it possible to organize the work so that the community could be used extensively as a laboratory. Blocks of time were available in which groups could take trips to the art museum,

welfare centers, and industrial plants. Not so many hours were required for classroom attendance, thus enabling the pupil to spend more time in investigation.

### *Development of Philosophy*

When the new curriculum was organized, the faculty was concerned with keeping before the pupils the philosophy of unchanging values in the midst of changing conditions. After seven years the concern was the same, but it was necessary to restate that philosophy in terms dictated by increasing threats to a democratic way of life. This restatement follows:

We believe the central purpose of education is to develop and foster the democratic way of life. The democratic way of life recognizes the worth of the individual and is developed through cooperative living and through the application of intelligence. Our belief in the worth of the individual leads us to study his needs in order to help him become an effective individual and social being.

Because we believe in the democratic way of life, our chief concern is with the individual. Our responsibility is to create opportunities for the fullest possible development of his capacities. To that end we try to understand him. We try to help him find his place in the world. His finest instincts must be satisfied.

The individual cannot live alone; he must live with others. Our responsibility, then, is to encourage all opportunities for learning the value of cooperation through experience. Only through working with others with common purposes will he learn to accept responsibility for the common good. We believe that the value of cooperation lies in the fact that it provides the individual with unique opportunities for growth, both as an individual and as a social being.

We have faith that problems which are in the life of the individual and in our democratic society can be solved, by the use of intelligence. If education is to be vital and if democracy is to survive, intelligent understanding and action must be at the heart of every life situation.

### *Unsolved Problems*

Changes in courses of study and schedules often create new problems. When more is required in a regular program, the opportunity to select other features is curtailed. It has been so in the new curriculum, where often the arts and foreign languages



have had to be elected as a fifth subject if the pupils wished to include them in their program of studies.

A satisfactory science sequence or correlation with any other subject has not been established. Modifications in the biology requirements have been made to conform to the general objectives of the new curriculum.

Certain features of the work have been incorporated into the program of the whole school, such as the correlation of English and social studies in the eleventh year. Literature and the required social studies were based on "The American Scene," and the same plan of double alternating periods with classroom libraries made its establishment feasible. It has been impossible, with the physical limitations and the proper respect for electives, to carry out a like program for all subjects.

Difficulties were met in inaugurating the new curriculum, since funds were insufficient to purchase adequate equipment and to secure the necessary teaching and clerical help. Teachers were obliged to carry regular classes in addition to those of the new curriculum. Although there was much cooperative planning on the part of the faculty, the lack of schooltime for planning hampered the work. Community conferences, so highly desirable in such a program, had to be reduced to a minimum. This resulted in some lack of understanding of our purposes and activities. Such a lack of understanding was particularly unfortunate in a community where many citizens use the vivid recollections of their own educational experiences to judge those of their children.

A small secretarial staff made it almost impossible to keep the records adequately, to make the reports, and to give the clerical help so highly desirable in the establishment of a new plan. Field trips were often impossible because of the lack of transportation facilities. However, in spite of these handicaps, the faculty members engaged in the Eight-Year Study were fascinated by the possibilities and the opportunities offered in the new work, and would not of their own accord return to the old method.

### *Significant Developments*

Probably one of the most significant developments in the new curriculum has been the increase of pupil-teacher planning.

This is a democratic process through which a group or individual with the teacher determines objectives, subject matter, limitations, methods of procedure, and ultimately shares in the evaluation of the complete unit of work. This type of planning had a gradual growth until it permeated all fields, with highly significant results in the reactions of the pupils. They learned to set up their objectives clearly and to organize the work for extended periods with better self-direction. Evaluation of his work by the individual pupil was a natural outgrowth of the pupil-teacher planning. This kind of evaluation proved to be one of the best means of developing the habits of critical thinking and recognition of standards of value.

The school had never before used the resources of Cleveland and its environs to the extent that has been possible in the new curriculum plan. The curiosity of the pupils has been more generally aroused in social problems, and the opportunity to make individual and group trips to see the practical workings of civic, social, and cultural institutions has resulted in a greater appreciation of the functions of government and the intellectual and cultural pursuits of the community.

Another significant development of the Eight-Year Study was a concentrated effort on the part of the teachers to improve the processes and techniques of thinking. In every field the structure, relationships, and organization of materials were emphasized, while in mathematics specific methods of thinking were studied.

Classroom procedure devoted to individual and cooperative planning and research has sometimes been misunderstood. Pupils and even teachers have thought that nothing was being accomplished unless there was a formal recitation. This old conception has been gradually broken down. Not only in the new curriculum groups but throughout the school, the goal was to make every class period a working period.

While the chief effort of the new curriculum has been directed toward techniques of critical thinking and the establishment of habits of study, these objectives have also brought about critical analysis of patterns of living. Old concepts have been challenged and the pupil has been helped to formulate a philosophy of life. Horizons have been broadened by increased time for reading,

free discussions, and interviews. The concerted attack in the various subject fields on the problem of propaganda may serve as an illustration of one type of broadening experience. The pupils were led to detect propaganda in various books and newspapers. Slides from the museum depicted its use in cartoons from the Civil War period to the present time. In mathematics, students outlined opposing arguments on controversial topics.

An interesting experiment was carried on in geometry. The primary objective was the formation of better habits of thinking, through the transfer of the if-then type of thinking to non-mathematical material. An effort was made to enable the student to understand the need for clarity and precision of statement, the importance of definition, the nature of proof in deductive argument, and the absolute necessity for a background of information before any thinking should be done on any subject. These facts were emphasized:

1. Postulates or premises or assumptions are not self-evident truths or eternal verities—rather, in the last analysis, they are statements that we choose to make, or beliefs that we accept.

2. Euclidean geometry is not the only consistent system of geometry.

3. Absolute truth is an ideal rather than a reality.

Since reasoning with nonmathematical material is complicated by emotion and prejudice, it seemed wise to devote some time to the question of objectivity and to the commoner fallacies in reasoning. Some attention was also given to inductive methods of thinking—in particular, sampling, the use of analogy, and the drawing of conclusions from circumstantial evidence.

### *Curriculum*

*Social Studies.* In the presentation of the new curriculum social studies program, certain beliefs were basic:

1. The environment is dynamic and calls for a study of theories and programs designed to deal with change. The changing nature of environment means that a competent citizenry must be able to handle new situations and know how to think through new problems.

2. Social change through evolution is sanest and preferable.

3. Democracy best fits into an evolutionary environment. Democratic values include the concern for the dignity and worth of the individual, willingness to assume individual and group responsibility, and a faith in intelligence as the most effective means of furthering the common good. Thus the social studies teacher should be concerned with the emotional equipment of the student as well as with acquisition of content.

4. The school should be an agency for promotion and reconstruction of society in the development of characteristics of behavior which will enable the individual to foster the achievement of democratic values.

From the above points of view, pertinent aims evolved:

1. To enable the student to secure a realistic insight into the nature of evolving cultural patterns.
2. To develop a wholesome framework of values to which the student is willing to give his allegiance.
3. To develop individual personalities so that vital participation in present-day culture can be had on the basis of recognized and accepted values.

In establishing the three-year social studies sequence, the faculty had in mind the criteria pointed out in "The Social Studies Curriculum," an article in the *Fourteenth Year Book* of the Department of Superintendents of the N.E.A.:

1. The content, organization and techniques should contribute vitally to the proposed aims.
2. Wasteful repetition should be avoided.
3. Correlation with other fields should be easy and effective.
4. Learning situations should bear reality.
5. Students should be able to generalize from ideas of the sequence in relation to his own experiences.
6. There should be adaptation to community characteristics.
7. There should be adaptation to individual differences.
8. There should be flexibility in that teacher and student should have large responsibility for determining sequence of units and approach to them.

With these criteria as a basis, the following sequence evolved:

*Tenth grade.* Problems characteristic of world community living; study of government and characteristics of nations in

world community; study of Industrial Revolution as it affected individual life of nations and their relationships; world economic planning made necessary by Industrial Revolution; methods of world cooperation.

*Eleventh grade.* Problems of the American nation as an individual nation and in relation to the world community; world heritage of the American nation; structure of American democracy; study of problems of the American nation and their world community implications; the Industrial Revolution in relation to American problems; American influence as a world power.

*Twelfth grade.* Philosophies of the student as an individual; changing status of the family; conservation of human resources; evaluation of ethical standards; educational opportunity; social welfare; effect of technological processes on economic endeavor; vocational adjustments; expression of the will of the people through democratic process.

A certain framework for the teaching of units outlined in general above was established by unifying agents uppermost in the minds of the teacher and student:

1. Are themes of current life needs apparent; viz., interdependence, adaptation to change, man's use of nature, democracy and government, cultural heritage?

2. Is the unit content realistic? For example: (a) Is a current life need present? (b) Is there contact with new cultural patterns and other significant fields of learning? (c) What creative spirit is evident? (d) Is the major emphasis on content mastery or on learner growth? (e) Does the classroom reflect democracy in action? (f) Does the instruction bring out interrelationships and allow the student to see a unity between other fields of learning? (g) Is there opportunity to study concrete problems in local, state, national, or world areas? (h) Is vocational guidance served? (i) Are community living and effective group action served? (j) Are tryout and exploratory purposes included?

Methods of teaching were designed to attain the general goals for which the Eight-Year Study was established. Greater mastery of learning was achieved through emphasis on the techniques of

study and research, wide use of all sources of information, weighing of values, attack on problems in broad interlocking fields, pupil participation in evaluation of his own progress toward objectives.

Greater flexibility was made possible by the use of double periods for classwork, allowing for pupil planning, excursions, individual guidance; larger blocks of time permitted correlation with other subjects and caused the student to see all fields contributing to his objectives; larger blocks of time also allowed for more democratic action in group and committee work.

Release of creative energies was furthered by analysis of problems, because pupils learned to see the implications of inter-related problems and to draw conclusions therefrom; by student choice of activities in problem solving; by wide use of free discussion and opinions, thus stressing pupil viewpoint, reasoning, and support of a position.

More continuity of learning was effected by the elimination of brief courses and assignments and the substitution of student-planned areas of work; closer correlation with other subject fields, especially with English, art, and music; laboratory work to meet individual student needs, with stress on independent investigations.

Democracy in action was evidenced by student planning; tolerance of honest differences of opinion; the effort to understand world social structures and processes, with a view to correction; student cooperation; the emphasis on social justice and on critical judgment; the use of democratic procedure in the classroom; provision for the use of community resources and for cooperation between home and school.

The social studies program at Shaker High School was designed to be comprehensive, in that provision was made for consideration of all fields of the social sciences. Often a field was treated as a separate subject, but always contributing toward the main objective. It was continuous in that it was possible to see definite relationships forward and backward. When the same element of study was considered in more than one sequence, new aspects or implications were established in the higher sequence. It was uniform in that emphasis in all sequences was on the value

of the individual—looking toward his development of a constructive faith in those ideals and methods necessary for an enlightened citizenry.

*English.* As has been stated, English, social studies, and art were organized into broad fields for a three-year sequence and the units in the English sequence were known as "World Themes: Leadership and Social Justice," "The Pageant of America," and "The Individual and His Relationships."

The program for the tenth year, World Themes, included a study of Leadership—outstanding personalities of the last one hundred years—and Social Justice. In the study of leadership, class discussion and themes were based on the reading of biographies, personal interviews, and an examination of modern dictatorship. A listing of the recurring characteristics that determine leadership brought the question close to the various personalities in the classroom, the school, and the immediate community; for, as one student said, "Whenever people think and act together, the need of leadership arises." The novel, drama, poetry, and pictorial art contributed to the study of social justice.

During the eleventh year the study of American literature and art emphasized the social implications of our melting pot, the beauty of our pioneer movements, and the significance of the American mind. This program included not only modern writings dealing with our mixed population but also classic literature of the world as a background to this modern melting pot. The pioneer spirit was seen in a study of American types. A cross section of the American mind was revealed through a critical study of the drama, best sellers, moving pictures, radio, newspapers, and periodicals. This study of America stressed, above all else, the richness of our democratic heritage. The student, through his own analytical thinking, determined what democracy meant to him and what responsibilities it entailed.

The last development in this three-year sequence was a study by the seniors of the individual in relation to his family and to himself. The angle of the family was studied through *Hamlet* and *The Mill on the Floss*, and through modern novels and drama. During the last half of the year the emphasis shifted from the family to the individual's philosophy, toward the ideals of friend-

ship, love, death, ambition, and happiness. Poetry of all ages, dramas of many countries, essays from Plato to Morley, and a group of modern plays and novels were used as bases for understanding the ideals of others.

From the beginning of this experiment, students were given much freedom and also much responsibility in following their own interests. Teacher-pupil planning became an increasingly important factor in developing the English program. Before the student began his chosen work in any unit, he defined for himself his objectives in that particular project, stating in what way he planned to achieve the desired results. This was the general procedure before any work was undertaken, whether by an individual student, by small groups, or by the class as a whole. After the work mapped out had been completed, the results were criticized. Not only did the individual student evaluate his own personal achievement, but the class also evaluated its group activities.

Testing was another method of evaluation. The Research Department furnished many standardized tests, and the students took an active interest in developing their own testing material. For example, the tenth grade students made, for machine scoring, tests covering twelve different classics.

The English curriculum in every unit stressed the importance of developing the language skills. A program based on reading, creative writing, class discussions, oral and written reports, and drama interpretation not only furnished opportunities for developing the basic skills involved in reading, writing, speaking, and listening, but also emphasized for the student the necessity of such training.

Free reading was encouraged in all classes. Pupils' reading lists, discussed at intervals with the teacher, reflected a wide range of subjects, types, and interests; but what was more gratifying, they showed a keener discrimination from year to year. It might be noted here that the classroom library stimulated reading interest, but the school library, which is affiliated with the Cleveland Public Library, was able to supply an almost unlimited selection of titles.

Throughout the three years the philosophy of enduring values



in a changing world was applied to ideas, human experiences, and literary qualities.

*Creative Arts.* We believe that the best approach to an appreciation and understanding of the creative arts is through experience. In the beginning of this eleventh grade course, students painted or wrote or sculptured, and expressed their own ideas or their own interpretation of an idea. Later they considered the work of a mature artist who had dealt with a similar theme or material, and found in their own experience a key to his meaning. In the statement of a problem and in the discussion of students' work, no attention was given to technique. Points of technique might naturally come up for recognition, but the emphasis lay elsewhere. As soon as a student discovered—and that was very early in the work—that both teacher and class were interested in his expression of an idea and not in his skill or lack of it, he was freed from distrust of his own ability. Another experience invaluable to the student was the discovery that his painting or his poem was valued because it was different from the rest and not because it conformed to a standard. Self-consciousness was lost when he found that he need not think of what someone else might do, but only of what he himself wanted to do.

One of the major objectives of this arts program was to develop an understanding of the interrelationships of the arts. However, the attempt to relate subject fields through subject matter—as studying Negro art in the studio because the music class was singing Negro spirituals, or painting bits of English landscape because the writing class was reading *L'Allegro* and *Il Penseroso*—would have led to a false situation. The living impulse behind the Negro music, or the poem, or the sculptured figure, was our concern.

We chose three basic themes for the year's work. These formed a frame within which the choice and sequence of work were infinitely flexible. The themes were rhythm, color, and unity. Rhythm was chosen because it is fundamental and begins with the "live creature" himself. Color was chosen because of its universal appeal. Unity was chosen because of its importance in all three arts—painting, writing, and music—and because of the

opportunity it gave to emphasize the wholeness of the year's work.

The major objectives of the creative arts course were as follows:

1. Understanding and enjoyment of the arts.
2. Understanding of the basic relationship of the arts.
3. Ability to interpret and express ideas through the medium of the arts.
4. Satisfaction in expression and interpretation.
5. Power to weigh, compare, and choose on a basis of selected values.
6. Freedom from self-consciousness in expression.
7. Realization of the value of individuality in expression and of self-reliance in judgment.

In our approach to the study of rhythm, we thought in terms of motion which is, by some means, controlled. Although the specific classroom procedure varied from year to year, at one time our first step in the writing class was to ask students to recall instances of familiar recurrent sounds, such as the dip of paddles, a trotting horse, falling rain, and so on, or of recurrent motion, such as waves on the beach or reapers at work. No special devices were suggested by the teacher, but the point was made that sound or motion can be conveyed in other ways than by actual description. Even in the students' first attempts there were obvious efforts to express rhythm by words or patterns of words. Although nothing whatsoever was said about form, the majority of students attempted to express themselves in verse form rather than in prose.

This period of expression was followed by a reading and discussion, carried on by students themselves, of the writing done in the previous week. Comments and criticism were encouraged, particularly in respect to the effects conveyed by a single bit of writing. Comparisons were readily made with the discovery that, varied though they were, all the interpretations were significant as individual expression. As a natural development, the students become interested in finding devices, such as the choice of words, the grouping of words, and a discriminating use of repetition,

which have helped to convey satisfying effects. As the final step, related poems and prose passages from varied sources were read for the purpose of comparison and evaluation. Revision of first attempts, if desired by the individual himself, and more writing followed.

The study of rhythm in the art class began with a simple statement to the effect that the artist can create the illusion of movement in a picture by the way he draws a moving object, such as a sailboat or a race horse, or by the way he draws objects swayed by an invisible force, such as the wind. The students were then asked to make a free composition in charcoal, such as "The Wind Blowing Trees," bearing in mind that their subject was movement. These compositions were put on the wall the next week and discussed. There was no negative criticism and no hair-splitting. Students were interested in finding the compositions that best conveyed the feeling of motion, and in finding devices that helped in the effect. They found that some positions of line show motion more than others, that repetition increases the effect, and so on. After this experiment in creative effort and discussion of the results, the teacher showed works of art in which the sensation of motion was conveyed—using reproductions, or slides and illustrations in a projection lantern.

This series of experiences was repeated in subsequent studies: feeling, expression, criticism, understanding, and appreciation; and, finally, again expression. New experiences were built upon what had gone before. For instance, when a student had fully understood that line, form, or color may be so organized as to give the impression of moving objects, he was then ready to understand the movement or rhythm that exists in a work of art where there is no objective motion.

No attempt was made in the music class to have the students produce compositions. We believe that listening to music, when there is individual interpretation of what the composer has said, is not passive but creative. The fact that all we can see is an individual sitting quietly listening does not prove that he is not having a true experience.

Rhythm study in music began with the rhythms of primitive

dances, of the clapping of hands and the stamping of feet. Students came to realize that the human body functions rhythmically and that dancing, skating, swimming, and like activities illustrate the kind of movement and control that are the essence of rhythm. The student's enjoyment of music was stimulated through participation in singing folk songs, Negro spirituals, chanties, and selections from operas. Records were played on the phonograph, giving characteristic rhythms—"Nutcracker Suite Waltzes," "Tales from the Vienna Woods," and so on. Later developments in the course were illustrated with records, and musical programs were given by members of the class or by fine musicians.

These examples of the first approach to the study of rhythm in the three classes were characteristic of the work throughout the course. However, we wish to emphasize the fact that the program allowed greater freedom of individual selection and interpretation than might seem apparent from this brief description. That is, at no time was an individual bound by suggestions made to the group by the teacher. Frequently no suggestions were made at all, and the choice of subject was as varied as the group itself. For the purpose of comparison on the basis of selected values, however, we felt justified in having the group work on a subject common to all, yet broad enough for a wide range of interpretation.

No attempt was made at any point to force integration of subject matter; rather, our chief concern was to let students discover for themselves, or to help them find when necessary, fundamental relationships between the arts. It would sometimes happen that there was a natural carry-over from one class to another, as when the class painted "Under the Sea" compositions and later wrote upon the same subject; or when, after singing Christmas processions in the music class, they drew groups of moving figures in procession and in the dance. Such parallels were welcomed when the relationship was real and not superficial.

A visitor would often say, "I can see how you can expect the students to produce compositions of rhythms in writing and music. But how do you go about it in painting?" or "I can see how you introduce them to color in the art class. But what do you do

with it in music and writing?" Such questions might be answered by specific examples of our studies in color.

In the art class, color was first studied as color rhythm; that is, it was made clear that the eye follows naturally a sequence of color, like the rainbow, and that it is possible to compose with sequences. A subject such as a wave, chosen because it is in motion and because the form is infinitely flexible, was given; the students tried to make the sequence of greens and blues—with all their variations of light and dark, bright and dull—build up and accelerate the suggested motion. This was dealing with color as objective color: "This is green, and this is blue. What can I do with them?" or "Will the color of the green field look different in the distance?" The study of color passed on to the choice of color to express a mood, the subjective use of color. Here the possibilities were endless.

In the writing class, students were asked to recall things seen and remembered for their color. Vivid descriptive passages from mature authors were read. All of this dealt with objective color, or the expression of color images through the use of color names. The study moved on to the creation of mood by suggestion, wherein no actual color name need be used. This we thought of as subjective color, and as the study progressed, always through self-expression first, the students came to feel the difference between a colorful and colorless piece of writing.

Color in music was considered from the point of view of tone with its variation in pitch and quality. Students became aware that voices and musical instruments differ in quality or tone color. This is objective. The study of subjective color or mood in music offered rich opportunities for creative listening.

In dealing with the third theme, unity, our first approach was through the unity in a single art; then, toward the end of our year's study, we turned to the art of the theatre and discovered how expression in all the arts may be used to make one coherent whole. Everything that had gone before in the year's work could be drawn into this final study.

Our conviction of the value of the creative arts course rests upon observation of the students' behavior in class, and upon what they have said about it in conversation and in writing. All

of this, of course, is informal and there is no attempt to present it here as material which can be tabulated, checked, and compared.

A senior student whose major interest was science, writing of her experience in this work after the lapse of a year, said, "I enjoyed the creative art more than any of the other topics [divisions of the art course]. It taught me that I could do things I had never dreamed of doing. I can't tell you the fascination and satisfaction the course had for me."

This sheer enjoyment and the satisfaction of discovering one's own expanding powers were reflected in varying degrees in the attitude of many students. After a discussion of classwork upon the wall, one member turned to the teacher and said, "What strikes me about this lesson is that we could not possibly have done this at the beginning of the year!" In the studio the majority of the class had to be forced to stop at the end of the hour. When the reading of students' work had to be curtailed for lack of time, there was evident disappointment because all the contributions had not been read.

A boy wrote an exceedingly interesting poem about a musical theme dealt with in the music class. One of the most significant things about it, to the teacher, was the fact that the boy had claimed he was not interested in the music. This illustrates the point that, although some of the class may say at the beginning of the work that they are not interested, sooner or later practically everyone produces something worth while in at least one of the arts. When that happens, and is recognized, the student's interest is won.

The teachers who have been working with this course in the creative arts are convinced that it is worth while for students to have experiences that will lead to an understanding of the relationship of the arts and that they must continually seek for relationships that are basic. They are convinced that the procedure which provides for the student's expression first, and follows it with discussion of his own work and the work of mature artists, is the right one. All the details which are given in this report to make the examples concrete and understandable might be changed or discarded. The underlying purpose of the

course can be carried out in many different ways, and if it is alive and real it will continuously change.

*Mathematics.* One of the most insistent problems confronting the teacher of plane geometry is that of the transfer of the if-then type of thinking to situations that are nonmathematical in character. The exercise on income tax evasion given later is a sample from a large body of teaching-testing material designed for this purpose. It should be explained that this material was planned for the use of students who for various reasons desired or required a rigorous and complete course in plane geometry and who had no extra time for research on current problems. These same students, however, were doing considerable research in current problems in a required course in social science.

In the beginning an effort was made to use questions that were not only worthy of serious consideration but also of timely interest. Experience with the lengthy and laborious process of test construction soon suggested the wisdom of a backlog of items on problems of more permanent interest.

These teaching-testing devices were designed to supplement and clarify class discussions concerning the essential nature of proof in any deductive argument or system of deductive reasoning. In such discussions the place of definition in reasoned discourse, or more broadly the need for understanding and agreement by disputants concerning the meaning of important words and the nature of premises or assumptions, was explained. Inductive proof was contrasted with the deductive; and inductive methods, such as sampling and the use of circumstantial evidence, were considered in some detail. The necessity for adequate information, prejudice as a hindrance to clear thinking, the importance of the selection of issues, and the commoner fallacies in reasoning were other topics to which some attention was given.

An effort was made to include in all exercises questions to which the responses could be marked objectively. Some of the most valuable material did not yield itself to such treatment. As an illustration, an exercise designed to call attention to the need for understanding the meaning of words may be described. This exercise consists of two parts. The first part contains a few

paragraphs concerning the history of child labor in America, an exact statement of the child labor amendment which was still pending, and ten highly controversial statements by important persons concerning the desirability or undesirability of passage of the amendment. In the discussions which followed the reading of the first part of the exercise, students invariably arrived at the conclusion that not child labor but the wording of the amendment was the apparent issue. They usually accepted a challenge to improve the wording—after which they were handed the second part of the exercise, which explains in detail just why every important word was selected by the writers of the amendment in preference to another word of somewhat similar meaning.

An exercise designed to give some practice in the weighing of evidence was written at the Progressive Education Workshop in Bronxville in 1937 with the advice and suggestions of Dr. Maurice L. Hartung and other members of the group. This exercise was based upon the highly controversial subject of the Memorial Day riot at the Republic Steel plant in Chicago. It was customarily given in the second semester, after students had learned something about circumstantial evidence and after they had become thoroughly aware of the effects of prejudice upon thinking. Information was collected, one year, which indicated that students marked this exercise much more objectively than their parents.

It is just as important for individuals, if they are to become effective citizens, to learn to criticize the thinking done by other people as it is for them to learn to think for themselves. Learning to read argumentative material intelligently is the first step in this process. The exercise which follows was intended primarily as a reading exercise.

### Geometry and Methods of Thinking

On June 1, 1937, President Roosevelt sent a message to Congress demanding a congressional investigation of the evasion of income taxes by wealthy persons. A letter from Mr. Henry Morgenthau, Secretary of the Treasury, listing eight common devices of income tax evasion has prompted this message.

To quote from President Roosevelt's message:



"Methods of escape or intended escape from tax liability are many. Some are instances of avoidance which appear to have the color of legality; others are on the border line of legality; others are plainly contrary to the letter of the law.

"All are alike in that they are definitely contrary to the spirit of the law. All are alike in that they represent a determined effort on the part of those who use them to dodge the payment of taxes which Congress based on the ability to pay. All are alike in that failure to pay results in shifting the tax load to the shoulders of others less able to pay, and in mulcting the Treasury of the Government's just dues. . . .

"Very definitely, the issue immediately before us is the single one relating to the evasion or unethical avoidance of existing laws. Already efforts to befog this issue appear. Already certain newspaper publishers are seeking to make it appear—first, that if an individual can devise unanticipated methods to avoid taxes which the Congress intended him to pay, he is doing nothing unpatriotic or unethical; and, second, that because certain individuals do not approve of high income tax brackets, or the undistributed earnings tax, or the capital gains tax, the first duty of the Congress should be the repeal or reduction of these taxes. In other words, not one but many red herrings are in preparation."

A few days later Mr. J. Pierpont Morgan was interviewed by ship news reporters on the *Queen Mary*. Said he:

"Taxing is a legal question pure and simple. Why shouldn't they incorporate their yachts? Anyone has the right to do anything as long as the law does not say that it is wrong. I object strenuously to treating income tax evasion as a moral issue.

"Congress should know how to levy taxes. It is not up to us taxpayers to repair the mistakes of Congress."

It is only fair to mention the fact that Mr. Morgan corrected this statement in a later interview, but we may still study it as a point of view.

## PART I

Just what do you think is the issue between President Roosevelt and Mr. Morgan; that is, on what question do they differ? Read the following questions and check the one which most nearly states the issue.

- 1. Should income taxes be based on the ability to pay?
- 2. Is the evasion of income taxes unpatriotic?
- 3. Should a citizen obey the spirit or the letter of the law in paying income taxes?

- 4. Should the government reform the income tax laws?
- 5. Should taxes in general be lowered?
- 6. Are income taxes in the upper brackets too high?

## PART II

Both President Roosevelt and Mr. Morgan have arrived at very definite conclusions in their thinking. Read the following statements carefully. Place an "R" in front of the statement which you think best represents the conclusion of President Roosevelt and an "M" in front of the statement which best presents the conclusion of Mr. Morgan.

*Conclusions*

- 1. Congress should close the loopholes in the income tax laws.
- 2. Many of the common methods of tax evasion are perfectly legal.
- 3. Rich men with high-priced lawyers do not have to pay income taxes.
- 4. The evasion of income taxes is a legal rather than a moral matter.
- 5. There is no reason why wealthy persons should not incorporate their yachts.
- 6. Income tax evaders should be prosecuted.
- 7. Citizens who use the eight common devices mentioned by Secretary Morgenthau are guilty of an unethical practice.
- 8. Newspaper publishers should not be permitted to divert the attention of the public from the real issue.
- 9. Disapproval of huge expenditures for relief and other forms of aid for the destitute is the real cause of tax evasion.
- 10. The evasion of income taxes shifts the tax burden from the shoulders of the wealthy to those of the poor.

## PART III

Both President Roosevelt and Mr. Morgan draw their conclusions from opinions, underlying beliefs, or generalizations which may be called "assumptions" or "premises." Read the following statements carefully. Place an "R" in front of the statement which you think best represents President Roosevelt's premise and an "M" in front of the statement which you think best represents Mr. Morgan's premise.

*Premises*

- 1. Any law, however well intentioned, is a bad law if it does not work.
- 2. Taxation from every aspect is a legal rather than a moral matter.

- 3. A government which expects a citizen to treat his taxes as an obligation of honor should treat its expenditures of the citizen's money as an obligation of honor.
- 4. Where the government is concerned, no one considers it wrong to get away with what he can.
- 5. Taxpayers who comply with all the terms of the law should not be censured for paying no more than they owe.
- 6. The evasion of an existing law is an unethical practice.
- 7. Clever politicians frequently attack wealthy citizens in order to divert attention from their own mistakes and failures.
- 8. A severe and unjust tax will always be accompanied by considerable tax evasion.
- 9. An attack upon the lawful revenues of a government is an attack upon the whole structure of the government.
- 10. A wealthy man should administer his property not only for his own good but also for the good of the state.

### *Classroom Practices*

Our philosophy emphasizes the worth of the individual, the value of cooperation, and reliance on intelligence for the solution of personal and social problems. Classroom practices in the new curriculum work were the outgrowth of this philosophy. The individual was taught the techniques of research, how best to organize his time, and he was given experiences which develop initiative, self-reliance, and a sense of responsibility. Group experiences which develop tolerance, cooperation, and respect for the democratic method were provided.

Constant practice in democratic methods of procedure was given by teacher-pupil planning, by student participation in forums and panel discussions, and by student committees representative of their groups. It was customary for student committees to arrange for many of the educational trips that were taken.

The evolution of the art survey course required of seniors in the Eight-Year Study was an illustration of experience in a democratic procedure. Representative student committees had an increasing share in planning this course so that it became more flexible and varied each year.

Frequently students or teachers (or both) invited interested parents or leaders in the community to the classroom to par-

ticipate in group discussions on important problems. These speakers, who were experienced in business or professional fields, motivated the consideration of possible solutions. Visitors in the classroom were also urged to participate in discussions. This procedure, which was made possible by the flexibility of the whole program, had its public-relations value in that it made the community conscious of the readiness of the school to face present-day problems.

In addition to those practices which developed cooperative experience within the group, there were others concerned primarily with the development of the individual. He had to be taught the procedures of learning and helped to solve his personal problems.

Students acquired some of the procedures of learning by attempting to solve research problems of their own selection. They were required to make a plan, to collect adequate information, and to organize their material in some final form.

In the collecting of information, the teacher acted as adviser. Often he suggested sources of information outside the classroom and sources of information other than books. The student was then at liberty to go anywhere in the community or in the city of Cleveland in search of material. Reports based on this individual research were commonly made to the group.

Special methods of gathering information had to be taught when sources other than books were used. For example, where it was a matter of interviewing a prominent man, the student had to be instructed in the techniques of interviewing. It is worthy of note that many of the students considered the information gleaned from interviews with men who were leaders as most helpful to them in planning their own futures.

Creative expression was given emphasis in the new curriculum work. Special opportunities in creative writing, music, and art were offered with the purpose of stimulating creative imagination expressed in art forms. In all fields there was constant emphasis on originality. Whenever the nature of the work permitted, a wide range of subject and treatment was offered to the student.

The practices which have been described made it possible

not only for the teacher to know the students more intimately but also for students to become better acquainted with one another. The large blocks of time, informality of classroom procedure, and the sense of group responsibility created a situation in which teacher and classmates helped the individual to overcome those inner conflicts, repressions, stresses, and hurts which are inevitably a part of the adjustment of growing youth.

# THE TOWER HILL SCHOOL

WILMINGTON, DELAWARE

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In 1923, less than four years after the Tower Hill School had been founded, it was surveyed by a committee of three nationally known educators. The board of trustees wished to find out what was needed to make this new institution of the greatest usefulness to its patrons and to the larger program of Delaware, which was itself making educational history under the revolutionary New School Code of 1919. As a result of the survey the trustees of the school, influenced by the example of the Lincoln School of Teachers College, decided to fall in line with the newer educational trends that were rapidly modifying educational practices, and to adopt a modern educational program.

For a year prior to the opening of the new building in September, 1920, the school was located temporarily in two residences. In 1927 the auditorium wing was expanded to provide music and art studios, and later two new athletic fields and a clubhouse were added. Recently, alterations in the main building have been made to increase the facilities of the science laboratory.

The present enrollment of the school is about 300 pupils, representing families of business executives, research chemists, bankers, brokers, and other business and professional men. Approximately 14 per cent of the students at Tower Hill (including children of the faculty) hold scholarships, either from the trustees or from the Home and School Association, which offers two scholarships each year. Most of the scholarship holders, excepting children of the faculty, are in grades IX through XII. Approximately 85 per cent of the graduates of Tower Hill enter college each year, and at present about 100 of its graduates are enrolled in 30 leading colleges.

Tower Hill has always welcomed visitors who may be interested in observing its methods. Some 500 parents and teachers from Delaware and adjoining states visit the school each year.

The school also has a system of assistant teachers who serve a year's apprenticeship under the close guidance of supervisory members of the staff.

### THE DEVELOPMENT OF THE SCHOOL PROGRAM

#### *Nature of the School Program at the Beginning of the Study*

In September, 1933, the school had behind it ten years of experience with what the public insists upon calling "progressive" education, although the school staff itself has assiduously avoided the label "progressive" on the basis that such a designation implies commitment to a fixed set of methods and principles rather than the open-minded, self-critical attitude upon which the school has prided itself. It persists in believing that the fastest progress can be made in the middle of the road.

These ten years had convinced the staff and a reasonable proportion of the patrons that the school had justified its evolutionary program, which may be described briefly as possessing these characteristics: (1) a competent staff continuously engaged in self-evaluation and research on its problems; (2) an organized and active plan of cooperation between the school and the home; (3) an increasingly unified program from the kindergarten through the senior year; (4) considerable progress in developing curricular materials and experiences that were vital and significant to the children, although many gaps and inadequacies were admitted; (5) a growing sense in both teachers and pupils of understanding, participation, and cooperation in all the affairs of the school community; (6) a program that was successful as judged by the usual tests of achievement and by the success of the graduates in college.

#### *Overview of the Total School Program*

*Evolution of the Present Program.* For two years before the school became a participant in the Eight-Year Study, the staff, trying to find out what relation, if any, existed between the activities of the school and such generalized goals as character, responsibility, cooperation, and many other traits, had been work-

ing on a detailed study of all its habitual procedures to try to discover to what extent they served to develop these desirable traits. Homework, parties, athletics, student government, teacher attitudes, and prescribed curricula were all listed and analyzed as to character-forming effects. Committees had been organized and were already at work, but with little sense of direction, on an attempt to define our common objectives and to test them in every possible school situation.

When the Eight-Year Study began, much of the spadework had been done. Our major goals, as agreed upon by the entire faculty, were: (1) social cooperation, (2) critical thinking, (3) appreciation, and (4) mental and physical health. To these four, another—skills—was added later. A committee was organized to study each of these five objectives. These committees became in effect study groups to develop the significance of the objectives and their implications for changes in the curriculum. The five chairmen, together with the director of the whole study of objectives and evaluation in the school, have constituted a kind of executive and coordinating group. Undoubtedly one of the most beneficial results that has come to the school from its participation in the Study has been the opportunity of sharing in the work of the Committees on Objectives. Every member of the staff, from the kindergarten through the senior year, volunteered to serve on one of the five committees.

During the years, a constant effort has been made not only to keep our objectives clearly before us but to test their accomplishment by questionnaires, anecdotal records, check sheets, and conferences.

In addition to definite gains in the building of desirable attitudes on the part of pupils, this long-term task has resulted in better classroom procedure, more sustained effort to evaluate every sort of situation, and a marked increase in the ability of the faculty to think together and to develop a common philosophy.

*Administrative Organization.* For many years Tower Hill has been working toward a democratically organized school administration. Participation in several whole-school studies has hastened that development because of the division of labor re-



quired. Like any real democratic institution, the school is built upon the cooperation of participating groups and individuals. These groups, each carrying specific responsibilities, yet working closely with the headmaster and each other, are: the trustees, the faculty, the students, the parents.

Actually the curriculum is planned, in general, by the faculty individually or in groups, with some participation by the students.

The headmaster seeks joint faculty action and participation through group discussion. Frequent meetings of the faculty as a whole or in smaller groups foster understanding of school policies and give opportunity for joint thinking and acting. At the end of each school year the whole staff meets in conference for the purpose of summing up the assets and liabilities of the past year. Using these concrete notes as a basis for action, the faculty is able to work together the following year to promote the general school welfare.

Democratic participation among the faculty is further gained by the committee form of organization. Standing committees, appointed by the headmaster, act in the following areas: objectives, library, health and safety, records, museum, study and use of motion pictures, dining room, scholarships, editing, and social life.

Just as important as the formally organized committees are the many kinds of informal cooperative *action between individuals and groups*. Teachers assist one another in teaching, plan the curriculum together, and in other ways helps to create a feeling of cooperation rather than competition with each other. Many of these are merely "conferences," sometimes meeting only once, informally, to discuss or act on a given problem. As a result, individual teachers are aware of the immediate objectives of fellow teachers, and the faculty becomes a better-knit organization.

Of the committees formed during the past two years to act over a long period of time, four might be mentioned for their efficacy in fostering joint faculty philosophy and in securing unified faculty action. They were the Committee on the Tower Hill Manual, the Committee for the Study and Use of Motion Pictures,

the Committee for Reporting on the Eight-Year Study, and the Committee on Revision of the Eighth Grade Curriculum.

After a need had been expressed frequently by various teachers at Tower Hill for some kind of handbook or manual describing the characteristic policies and procedures of the school, the suggestion was made that a committee, broadly representative of the entire faculty, be appointed to prepare the manual.

This "group project," with the assistance of the entire faculty, was undertaken and completed in less than a year, resulting in a mimeographed first edition of the *Tower Hill School Manual*.

In like manner the entire faculty undertook another joint creative problem in the writing of a book after a year's work on the Motion Picture Project. Using material submitted by every member of the staff, an editorial committee sorted and selected available data, edited material, and submitted a volume entitled *A School Looks at Motion Pictures* to the American Council on Education.

The third attempt at cooperative writing on the part of the faculty is this present report.

A committee of a different nature, but acting on an important school problem, was the one concerned with the revision of the eighth grade curriculum. Because it had been felt for some time that the experiences of the eighth grade should be better coordinated and balanced, a large committee of teachers involved discussed the problem at some length and made suggestions for a modified curriculum as well as for changes in personnel; in addition, it presented various "ideal" programs for the eighth grade. After considerable discussion the suggestions were referred to the headmaster and a modified program put into effect.

The students, too, have their place in the administration of the school. With the headmaster serving as coordinator of student activities, and with various faculty members as advisers, the student body has a real share in planning and executing appropriate activities.

Extracts from the *Manual* reveal the school policy in such matters:

Children learn purposefully when they recognize close relationship to their own needs and interests. . . . Naturally, purpose must be

guided in worth-while directions. This kind of guidance allows a wide range of choice and freedom in the use of initiative and is very different from the procedure in which adults set all the standards, select materials, and develop them without reference to desires or reasons for learning on the part of children.

Tower Hill believes that it has a definite obligation to teach and practice the principles of democracy in every area of school life . . . that we should interpret and promote democratic principles . . . by utilizing democratic procedures appropriate to the maturity of the pupil in every type of relationship within the school as a community.

The school believes strongly in the general principle that students profit most from shared responsibilities. The teacher, because of wider knowledge and experience, may know best what goal should be achieved, but very frequently the ideas of children are invaluable in choosing which one of several means is best to reach the goal. . . .

Various activities for which students have entire or partial responsibility are mentioned in detail later in this report. Their growing share in helping to plan academic work is discussed in the sections on the social studies, English, and science curriculums.

While the parents play a less important role in the administrative organization than do the trustees, faculty, students, or headmaster, they have an indirect effect in forming the policies of the school, resulting chiefly from the Home and School organization, parent-teacher conferences, and parent study groups.

The Home and School Association, organized into committees, has its Hostess Committee, which arranges for daily hostesses to care for visitors at the school; its Education Committee, which plans special lectures and study groups and appoints grade chairmen who arrange for group conferences of parents; its Scholarship Committee, parent *Dial* editor, Program Committee, and Membership and Attendance Committee.

It may be seen, then, that, while the administration is democratically organized, each group has its special part to play, thus freeing the others for their particular jobs.

Thus the school may feel a certain amount of satisfaction because of an organization which encourages the cooperation of

all groups. Especially does the relationship between the faculty and headmaster seem to be one of understanding and loyalty. In an institution where responsibility is shared, individuals naturally use their abilities with greater spontaneity, ease, and enjoyment. So it is at Tower Hill that many of the faculty are stimulated to work on their own initiative and to take on extra work because they are interested, rather than because of outside pressure.

As a result of organization, too, the relationship of the Upper and Lower Schools is a particularly happy one. Many faculty meetings are attended by all members of the staff, while all standing committees include Upper and Lower School teachers. Each group, aware of the necessity for continuous student growth throughout the thirteen school years, keeps in touch with the progress of the other group, so that there is no great break for the student in his changes from grade to grade.

The organization fosters a philosophy of incalculable value to an institution that is developing and improving. The staff is convinced of the necessity of *making constant attempts to state and revise the philosophy and policies of the school*. It is this belief that keeps a faculty alive to the purposes and goals of education, alert to the possibilities of improvements to be made, and confident that a cooperating group can bring about desirable changes in children. Greatly stimulated by the conviction of the headmaster and the faculty, this philosophy has without doubt been fostered also by participation in the Eight-Year Study, and has become more firmly embodied in our own thinking because of the Study.

*Failures, Conflicts, and Unsolved Problems.* All schools, like all other institutions, have unsolved problems. This situation is less unfortunate than it sounds, for problems are not always detrimental. They may even constitute a source of strength if the difficulties are recognized and attacked by a faculty hoping always to improve their practices. Thus the conflicts at Tower Hill often form a point of departure for faculty meetings and for faculty-student discussions.

A few of the questions facing the school now may be traced

to the Eight-Year Study, but most of them are the result either of factors common to many modern schools or of the particular combination of circumstances in our school.

They are concerned chiefly with experimentation, relations with the community, relations with colleges, and the curriculum. They are stated below in the form of questions, for as such they have confronted us and demanded our attention:

1. Experimentation

- a. How can security be given pupils, parents, and teachers in making significant departures from the conventional pattern of college preparation?
- b. How can we deal with curriculum differences between Tower Hill and the more traditional schools to which a few of our students change?
- c. How can we give Latin courses of broad background, and include as much drill as is necessary to pass examinations of the Secondary Education Board?

2. Relations with the Community

- a. How can the community misunderstanding of the term "progressive" be clarified?
- b. How can a private school best work with the community to avoid class feeling?

3. Relations with Colleges

- a. What can be done about the following difficulty? (The means of reporting to colleges such intangible forms of achievement as ability to do research, growth in study habits, power of leadership, and critical thinking is still unsatisfactory.)
- b. What can we do about the situation faced by students taking the April Scholastic Aptitude Test, which contains a mathematical section? (Because of the individualized programs made possible in accordance with the Eight-Year Study, our pupils have had varying branches and amounts of mathematics. This would not make much difference if the test were really one of aptitudes. Actually it tests techniques as well as aptitudes.)

4. The Curriculum

ject matter content be balanced for individual pupils to prevent one area from dominating another; e.g., social studies excluding mathematics?

- b. How can curriculum be kept from too hastily planned changes which might be labeled opportunism?
- c. Has the Eight-Year Study, as a whole, tended to glorify the contemporary, with a corresponding loss of enduring values which are traditionally supposed to be derived from the more standardized cultural experiences?
- d. How can we avoid confusing verbal facility with thoughtful, painstaking performance?
- e. Does emphasis on the creative arts in a curriculum encourage dilettantism, because of the lack of tested procedures and reliable forms of evaluation?
- f. How can the community be used to best advantage in the junior high school?
- g. How can a single course be planned to meet the needs not only of students going to college but also of those who want simply a "general course"?

#### SIGNIFICANT DEVELOPMENTS IN THE SCHOOL

##### *Curricular Developments*

*The Program of Studies.* In each year of the Upper School, beginning with the seventh grade, Tower Hill unites in one course or "block" several related fields of subject matter under the direction of one teacher, who is assisted in planning and teaching by other teachers in related areas. This "block" meets for a long period each day, lasting from 90 minutes to 135 minutes. However, there has been a trend away from the core program toward a correlated program whenever it fits into the subject matter being studied. Thus there are occasions when the teacher is working alone, and other occasions when 5 or 6 teachers may be cooperating in a particular unit.

The blocks in each year include the following major topics or fields:

*Seventh grade.* A comparison of the cultures of North, Cen-

tral, and South America. Related fields: English, art, dramatics, and music.

*Eighth grade.* Three Centuries of Progress in America. Related fields: English, art, dramatics, science, and music.

*Ninth grade.* Ancient civilizations: Egyptian, Greek, and Roman. Related fields: English, art, music, and dramatics.

*Tenth grade.* Medieval civilization. Related fields: English, art, dramatics, science, and music.

*Eleventh grade.* General science. Related fields: history and the arts.

*Twelfth grade.* The American Scene. A study of the background and present trends of American life. Related fields: history, English, and the arts.

In connection with the "blocks" outlined in the foregoing paragraphs, it should be pointed out that they are not to be regarded as "culture epochs" to be studied as material for problem solving from an adult point of view, but as actually best suited to the probable needs of our adolescent pupils. The staff believes that the much-discussed "needs" of adolescence are not fully understood by anyone and only vaguely by the pupils themselves, but that through a flexible organization of the rich resources of the past, as well as of the present, abundant opportunity is given for the really vital concerns of young people to emerge and receive consideration. Whether we call a course "Medieval Civilization" or "Social and Economic Security" matters much less than does the quality of the instruction guiding the selection and organization of ideas.

While every student takes the "block," there is ample provision for individual or group needs and interests within the unified course; also, apart from the block each pupil elects such other subjects as meet either his special aptitude or his future vocational and academic needs. These electives, chosen under careful guidance, are also designed to give balance to each pupil's program of studies. Mathematics, science, foreign language, and art courses are available for these special purposes.

In the seventh grade the curriculum is largely a continuation of the Lower School plan of having a home room teacher to unify the course of study and to teach most of the academic subjects.

*The Science Program.* The science program at Tower Hill School has been developed with the aim of meeting the needs of a student body, the greater part of which enters college. In a small school this presents certain difficulties not encountered in larger systems. The needs of both those who intend to specialize in science and those who will take no further science must be met. Neither group can be neglected, while the small number of instructors available makes separate classes impracticable. To meet this situation, Tower Hill was already experimenting with various programs at the beginning of the Eight-Year Study.

The plan evolved as most suitable provided a course in physical science for all eleventh graders. Those who wished further science were allowed to elect one-semester courses in chemistry and physics during the senior year. In this way the needs of both groups could be met. The eleventh grade course was flexible enough to provide for both nonspecialists and those who were later to major in science. Not being a classical physics or chemistry course, it could avoid the technical difficulties that make such courses unsuitable for general students. At the same time, it provided sufficient background for special students so that an intensive half-year course in the senior year gave adequate preparation for college entrance examinations.

The publication of *Science in General Education*<sup>1</sup> offered an opportunity to re-examine the objectives of the course; the result was an outline of a course in which student needs and qualities of personality were made the criteria for the selection of course content and teaching technique.

A recent trend in the school is in the direction of correlating the work in the physical sciences with that in other subject matter fields. The first unit so designed was in connection with the study of the machine. As the machine was being studied at the same time that the social science course was dealing with the Industrial Revolution, correlation arose naturally. The work was discussed first by the eleventh grade instructors, then planned

<sup>1</sup> *Science in General Education*, Report of the Committee on the Function of Science in General Education, Progressive Education Association Publications, New York, Appleton-Century, 1938.



with the assistance of the students. A preliminary study of the simple machine was made in the laboratory, and the principles involved were the subject of lecture demonstrations and class discussions. Students in the social science and English classes made individual investigations supplementing the science work. These dealt mainly with the effects of the Industrial Revolution on the life of the people, bringing in such topics as urbanization, development of slums, wages and hours, child labor, working conditions, and various small-scale socialistic experiments which took place during the nineteenth century. Also included were the social and economic ideas derived from this revolution by such figures as Owens, Fourier, St. Simon, Karl Marx; the effect of literary figures and intellectuals, particularly in England, as represented by Mary Wollstonecraft, Shelley, Byron, Dickens, Gaskell, and Godwin. The effect of this thought as reflected in the extension of the franchise and in social legislation in England, in France under the Third Republic, and in Germany under Bismarck was also studied.

In order to make this new approach most effective, the class decided to summarize this work in the various areas by presenting an assembly program produced by the students. Although the instructors cooperated, the concept of the program and the writing of the production were made a student project. This correlation eventually involved the fields of the natural sciences, social studies, English, the arts, shop, and dramatics.

An interesting by-product of this study was the discovery of the value of the assembly program as a teaching device in the course described. In this particular unit the assembly program produced by the students had for its theme "The Trial of Mr. Advancing Science." Advancing Science was accused of being responsible for the social and economic ills of modern society. The attorney for the defense, on the other hand, depicted the accused as one of the great benefactors of mankind. Through medicine he had saved millions of lives; through inventions he had provided new opportunities for employment; through mass production he had opened up a new world of comfort and beauty. The evidence pro and con was presented by a series of dramatic scenes, and the judgment of Advancing Science was left to the audience.

As shown by student judgments, this experiment in correlation proved so successful that in the twelfth grade another unit, on War and War Industries, was attempted, correlating with the social studies and dealing with material not usually included in science courses. This unit had for its theme "The Relationship of Scientific Research to Modern Warfare," and included not only social and natural science but also vital events of the day, industrial opportunities within the community, and the application of science principles. The study followed preliminary units on Measurement and Laboratory Procedure, and a unit on the Properties of Matter.

In undertaking this study the students listed the subjects they wished to investigate. These were centered around the following themes:

1. Chemical Warfare (two students)
2. Explosives (one student)
3. Chemistry of the Soil and Hydroponics (one student)
4. Nitrogen Fixation (one student)
5. Dyes (two students)
6. Aerial Photography and Map Making (one student)
7. Principles and Development of Aviation (two students)
8. Submarine and Its Development (one student)
9. Synthetics (one student)
10. Ores and Their Location (two students)
11. Radio and Its Wartime Uses (one student)
12. Death Rays (one student)
13. Surgery, Antiseptics, Disinfectants (two students)

This unit cut across subject matter areas. The topic of explosives, for example, lent itself to the development of the concept of oxidation. The topic of death rays served as the basis for a survey of the entire spectrum of rays. Rather obscure interrelationships could be brought out very strikingly by such a unit. Thus the study of the fixation of nitrogen was related both to the study of the action of explosives and to the study of the chemistry of the soil. The investigation of explosives provided a satisfactory way of studying the Bernoulli effect and streamlining; the investigation of naval warfare led to an understanding of fluid pressure and Pascal's principle.

The ultimate value of such units as those described lay in so

thoroughly arousing the interest of the students that they carried out many worth-while projects under their own initiative. The degree of self-direction achieved was most gratifying, and the impetus of their own enthusiasm was such as to lead them on to much more thorough work than had marked their earlier achievements.

*The Social Studies Program.* During the past few years certain characteristics have developed in the social studies courses. By agreement among the social studies teachers, particular attention is paid to the following topics in studying any given period and people: (1) scientific developments, (2) economic developments, (3) home life, (4) religious practices, (5) government and law, (6) international relations, (7) the arts, (8) education.

Thus important themes run through the entire social studies program, giving continuity from year to year and allowing individuals to carry on projects in any of these fields from one year to another. This program leads to an increased amount of student-teacher planning. Another characteristic has been the trend away from the core program toward a correlated program whenever it fits into the subject matter being studied. A third characteristic has been the increased attention to the arts as media for classroom use. Inasmuch as social studies is required throughout the school for all students, the faculty agrees that many and varied opportunities should be given in this field for the pursuit of student interests which a full schedule of academic courses would not otherwise permit.

Largely as a result of the Eight-Year Study the ninth grade course was modified to include fewer areas of subject matter. Where formerly the group had studied the Egyptian, Hebrew, Greek, Roman, Babylonian, and Assyrian civilizations, now the Babylonian-Assyrian study has been discontinued and more stresses is placed on the study of Rome. This allows for natural correlation with Latin. There is considerable flexibility in the course from year to year. While each civilization is not presented from the standpoint of the eight areas mentioned above, at least one civilization is so studied. The time element is the determining factor in what may or may not be done. Many individual

projects are carried on, particularly in connection with the Art Department.

Throughout the year emphasis is placed upon our debt to these ancient civilizations. An attempt is made to compare problems of the present day with those of the past, to develop a deeper appreciation of the culture bequeathed to us, and to broaden the knowledge of the group from the geographical as well as the historical point of view.

A typical tenth grade unit is a study of modern Nazi Germany in its relation to the past. This naturally involves a review of the Teutonic tribes and their customs, many of which are brought out in the *Nibelungenlied*. The Music Department assists with the Wagnerian operas based on this epic. Thus the whole study contributes to the students' knowledge of modern nationalism and to the understanding of the people at the beginning of the so-called Dark Ages.

A larger part of the year in the tenth grade is applied to a study of the Renaissance period, particularly as a period of change:

1. Government. The beginnings of the breakdown of feudalism and the development of centralized government.
2. Economics. The results of the period of discovery, leading to the development of stock companies, mercantilism, and resulting colonization.
3. Architecture. A review of Roman and Byzantine architecture, the development of the Romanesque and Gothic, and the later decadent Renaissance architecture.
4. Art. The development of realism; the trend away from church subjects.
5. Music and Drama. The breaking away from the church environment, leading to the development of new forms.
6. Languages. The development of national languages in contrast with Latin, and their contributions to nationalism.
7. Reformation. An application of the scientific method to philosophy and religion.
8. Science. The development of the scientific method.

For the most part, the breaking away from authoritarianism is stressed. The study is rich in opportunities for individual research and hobby pursuits.

The eleventh grade course has been marked by increased correlation with the science course. A unit on the Industrial Revolution and its effect on modern life resulted in "The Trial of Mr. Advancing Science." This play, written by the class, has already been described.

Another such unit was that on War and War Industries. In social studies most of the topics chosen were directly related to those selected in the science class. These projects were carried out in a variety of ways, such as map and statistical chart making, personal interviews, and research. Students gave reports on which other members of the class took notes. The student selecting the topic of explosives for her project studied the development of the industry, types of explosives, war and peacetime uses, and the value of the industry in the United States. Those investigating chemical warfare made a study of the dye and nitrogen industries. These studies brought in problems dealing with the building of Muscle Shoals during the first World War; its history after the war, including a study of the TVA; discussions of government operation and control of industry; and a study of the world nitrogen cartel. The study of synthetics in science led to an investigation of the types of plastics and their uses, the importance of such materials in war and in peacetime, and the relation of world supply and consumption of raw materials to imperialism. The students made a map showing the distribution of raw materials throughout the world and the chief imports and exports of the leading countries of the world. Those investigating chemical warfare studied the effect of war on civilian populations. In like manner all the other topics investigated for science were made the topics for research in the social studies class.

A unit on Dictatorships compared a modern corporate state to France before the French Revolution. Such a unit brought much natural correlation with the Foreign Language Department.

The twelfth grade course, which is called "The American Scene," allots little time to the study of American history as such, and emphasizes more strongly a study of modern national problems, involving an investigation of these problems in their local setting. This study of the community begins with the showing

of the "March of Time" film *Juvenile Delinquency*. Subsequent discussions brought out many questions dealing with the effects of slums, disease, penal reform, housing, social service, rehabilitation programs, and the various organizations at work in each field. After the discussion the students made a list of possible subjects for special investigation, and each chose some field of particular interest to himself. Some subjects were not directly related to those mentioned above, but all were connected with the local scene. Thus this unit also carried on the work previously studied in the eleventh grade in connection with the effects of the Industrial Revolution. One student made an investigation of the Wilmington city government. A study of the City Charter brought him to the conclusion that one of its weaknesses is the difficulty in changing it. A comparative study of city governments led him to believe that our municipal government should be changed to provide for a city manager system. He also arrived at various conclusions about weaknesses in the present government. For example, the meat and milk inspectors should be appointed by the Board of Health, and the building inspector by the Department of Public Safety rather than by the City Council, as at present, in order to lessen political appointments in these offices. The establishment of a civil service commission in the city would reduce political appointments. A study of election procedures led the class to draw up a letter, which was sent to the Delaware Citizens Association, recommending changes in certain election laws. These were later forwarded to the Governor of the State.

Inasmuch as the home environment plays an important part in creating conditions leading to crime, there was great interest in the housing situation in the city and in the Federal Housing Program. The group making this investigation studied first the local and national laws. They found that nothing was being done about new housing projects because of the differences of opinion between federal and state officials concerning interpretation of these laws. They learned that the city has no slum areas; but their pleasure at this was short-lived when they were informed that by definition a "slum area" must consist of five city blocks of tenements, and that the tenement area of this city is

not compact enough to fit into this definition. Members of the Police Department took students through some of the worst tenements, pointing out the relationship of such areas to crime.

The problem of tuberculosis was also studied. A group of students visited the sanitariums and was extremely interested to learn that most patients came from the poorer sections and therefore were of necessity treated free. A member of the antituberculosis association visited the school, giving further statistics about the disease in the state. The students assisted in the sale of Christmas seals, broadcasting two radio sketches over the local network, one of which was written by two members of the class, to publicize the drive.

As the investigations were being carried on, the various groups presented their findings to the class in individual reports, panel discussions, and statistical charts. For example, charts were made showing the different zoning areas according to the present law, the different rent areas in regard to housing, the distribution of cases of juvenile delinquency, and distribution of tuberculosis cases within the city. These reports raised many other problems for further investigation during the study of American history, and gave the students a much better idea than they formerly had as to the interplay of federal, state, and local agencies. They were also made keenly aware of the needless waste of human life and ability, and the cost to society of inefficient public management.

*Senior Investigations.* Early in his senior year each pupil chooses a topic which he wishes to investigate. It usually represents a dominant intellectual interest, a hobby, or the analysis of a vocation. The school believes that detailed exploration of a subject is most fruitful when the student has himself acquired a vital interest in it.

The senior investigation has certain definite requirements. The student must assume full responsibility for the organization of his topic, the location of source material, appointments for interviews, the selection of faculty adviser to be consulted by the student solely on the latter's initiative, and the final preparation of his manuscript. As sometimes happens, the student may use some other form, such as a pictorial, photographic, artistic,

or laboratory representation. He must meet "deadlines" without being reminded.

After his final manuscript has been approved, it must be typed and bound in uniform style for the permanent library collection, to be used for later reference study by the rest of the school. Quality rather than mere length is, of course, a criterion in the final judgment by the faculty committee.

The seniors are expected to give as much time to their investigations as that represented by one regular course; and whenever they feel the need to stay away from school for interviews either in Wilmington or out of town, they may do so by arrangement with their advisers.

*The Mathematics Program.* The chief effect of the Eight-Year Study upon the mathematics curriculum at Tower Hill School in grades IX through XII is that greater provision has been made for individual differences both in choice of course and within the course itself. Since all the mathematics courses above the ninth grade are now elective, there is great variety in possible combinations of courses. In general, however, most students take at least two years of mathematics.

*The Language Program.* While the curriculums of the Language Department have not changed radically in content, certain modifications may be noted. In English the aims and objectives are now stated, and appear to be wider in scope than former curriculum outlines indicated. These include emphasis on:

1. Developing ability to budget time and work with independence and initiative on long-term projects.
2. Learning to choose individual projects wisely and purposefully.
3. Developing wide and mature reading habits.

There is more correlation with other fields than formerly. The twelfth grade English curriculum has been changed from a study of English literature by types to a study of American literature. This has resulted in correlation with the twelfth grade course in American history, and has allowed for the writing and presentation of plays based on the history, literature, and problems of America. The eleventh grade course has been changed from a study of isolated English classics to a period study in order



to correlate to a greater degree with the eleventh grade history and science courses. As a result, papers, reports, and plays have reflected the background work done in history as well as in English and science classes.

There has also been much more opportunity for student planning with teachers. Classes plan, write, and produce plays; they help in selecting projects within certain areas; they frequently decide what books are to be read by individuals or by groups. There has been a whole-school drive to increase the language skills. Recognizing the necessity for proficiency in this area, the Language Department, together with all other branches of the faculty, has devoted increasing attention to teaching reading techniques, correct speech, library skills, spelling, handwriting, and punctuation.

Throughout the Eight-Year Study there have been certain changes in curriculum and content of the French courses, and some extension of aims.

- (1) There has been a definite aim at correlation of French history, civilization, and culture with work in social science, from the medieval period to the twentieth century.
- (2) Less time has been devoted to formal written French composition in order to allow more time for wide reading, and for oral and written reports on work done.
- (3) The writing and presenting of French plays, built around periods of history or types of people studied, have combined work in many departments, such as music, art, home economics, dramatics, and shop.

*The Creative Arts Program.* Under the Study plan the trend has been to use the arts as integrating forces in the school. Upper School pupils electing art as a major interest are given additional opportunity to experiment with a variety of materials, processes, and techniques; they are also given opportunity to carry out a series of individual art projects involving creative, appreciative, and informational aspects, and to develop attendant skills.

Courses in dramatics may serve to unify the arts. The teachers and students of dramatics, music, art, shop, the dance, and social studies often work together in such a manner that it is difficult to determine the "subject matter" source of an activity. This is

true of many group and whole-school activities. In the dramatic art groups the individual needs of the members of the group are discovered and met in a variety of ways. The work in the course includes playwriting, stage design, make-up, and costuming, as well as acting.

The place of the Music Department in the school has been greatly extended during the past eight years. In grades VII and VIII music classes are held once a week; in addition, the Junior Chorus, made up of these groups, meets once a week. In the Upper School there is also a chorus which offers opportunity for enjoyment and training in singing. The Upper School presents an operetta each year in which practically the whole senior high school participates in one way or another, with little interruption of the regular school life. In 1935 a three violin and cello string group was organized. This was the beginning of an instrumental rental plan and of class lessons. A band of 14 pieces and an orchestra of 12 pieces were organized, and a junior band was started for beginners.

In the school year 1939-1940 other music classes were added. A music appreciation course was begun, consisting of a study of composers, their lives, their contributions to music, and their works. At the same time a course in elementary harmony was started.

Another feature of the Music Department has been the amount of correlation with other subjects as an integral part of classroom procedure. For example, the social studies classes have often studied composers and music of a period for cultural background. Twelfth grade English classes have studied American composers and American folk songs, preparing a group of such songs for an assembly program. Music instructors have worked with students in the selection of incidental music for various plays given by the Foreign Language, English, Social Studies, and Science Departments. Music has also played an important part in school assemblies, being used 43 times in 1940.

*The Public Speaking Classes.* A significant feature of the curricular developments at Tower Hill School has been the discussion groups commonly designated as public speaking classes. The ninth and tenth grade boys, the ninth and tenth grade girls,

the eleventh and twelfth grade boys, and the eleventh and twelfth grade girls meet once a week in informal discussion groups. The aim of these groups is threefold: to familiarize the pupils with effective techniques of speaking and discussion; to prepare them for adjustment to college and vocations; and to afford a general exchange of views about all those personal, social, and educational problems which are of immediate interest to young adolescents. An especially interesting problem studied in connection with the Motion Picture Project was the relation of these pupils to the many forms of propaganda touching their lives.

The following list of activities is illustrative of the miscellaneous nature of the discussions:

1. Dramatizations of interviews and forms of etiquette.
2. Extemporaneous speeches on free choice of subjects.
3. Discussions of motion pictures related to propaganda, health, and child development.
4. Analyses of study habits.
5. Informal reports on senior investigations, hobbies, and other fields of special interest.
6. Talks by outside speakers on vocations, college adjustments, and educational objectives.
7. Practice in parliamentary procedure.
8. Frank evaluations of the pupils' own educational experiences.
9. Assembly presentation of topics of general interest.

The varied nature of the topics included is intentional, since there seems to be a need for at least one course in the school where problems not clearly related to the formal curriculum can be freely discussed, and appropriate action planned. Obviously in such informal groups the selection of the topics to be discussed or the activities to be chosen is left largely to the students, with the teacher acting in an advisory capacity.

#### *Relation of Special Group Activities to the Objectives of the School*

The development of the five main objectives for work in the school—namely, social cooperation, critical thinking, appreciation,

mental and physical health, and skills—is kept in mind by the faculty not only in connection with the subject matter curriculum but also as a fundamental part of what would usually be termed “extracurricular” activities. Several of these activities are naturally so rich in educative possibilities that all the school objectives may be fostered within the one activity.

An example of the latter is the General Students Organization, to which all pupils belong. Developing from an organization largely promoted by the faculty, the student government body has become, in the past ten years, a group free from faculty supervision except by student request. Functioning primarily as an avenue for democratic participation by students in school and community life, the group meets each month to discuss and vote on issues of importance to the student body. In this way democratic procedure becomes not a topic of discussion but a way of meeting and solving the problems of the school. The objectives of social cooperation and critical thinking are here notably served. Since much of the business is carried on through a committee form of organization, responsibility falls on numerous individuals for the efficient and intelligent conduct of business. In school meetings, too, the skills of speaking clearly and fluently before a group are put to practice.

The Student Council, made up of seven boys and seven girls elected from the three upper classes, also concerns itself chiefly with student problems, more particularly with matters of personal adjustment and occasionally with discipline. It is possible to say that the General Students Organization and the Student Council furnish invaluable opportunities for educating children in terms of our common purposes.

The use made of assemblies is a second instance of experiences which may integrate our objectives. In the first place, the extensive program of assemblies is planned by a subcommittee of the G.S.O., assisted by two faculty members. The assemblies they plan are a great contrast to the old Friday afternoon “rhetorical.” Assemblies are not fragmentary and disconnected, but unified and purposeful. They are by no means extracurricular in nature, but frequently draw on classroom resources for their background. They integrate the activities of the school, provide for sharing

the school life, and offer opportunity for democratic participation.

An example of the way these student-planned assemblies develop at Tower Hill is that of a recent Armistice Day assembly. As it is a tradition that the seniors take responsibility for this assembly, the pupils concerned discussed with their teachers of history and English the most significant social and political changes resulting from the first World War. In further discussions with teachers of dramatics, art, and music, techniques of presentation were considered. It was decided that the "living newspaper" technique of the Federal Theatre would be most effective and appropriate. Then, for six weeks, the class made a careful study of the causes of the war, together with some of the problems that emerged during the postwar period. Before the actual script was written, a great deal of careful research was carried out. Historical backgrounds, state papers, propaganda devices, and current literature, both American and European, were studied. The results of individual reading were reported to the class, discussed, evaluated, and then digested to provide suitable materials for the dramatic presentation. The project, from beginning to end, provided the participants with the most valuable experiences in individual responsibility and group cooperation. Each contributed and all benefited. The ultimate production gave the student audience a wealth of background material and was a most effective means of developing social sensitivity.

Through assembly programs the school is unified and has an opportunity to broaden its horizons by seeing what the various classes and special groups are studying. The French class presents a historical sketch of Parisian court life, or depicts the dances and customs of Indo-China; the Music Department produces a Gilbert and Sullivan opera; the Science Department presents demonstrations of the many forms and manifestations of energy; the fourth grade presents a play of the time of King Richard; the tenth grade social science group presents one of the ancient mystery plays. These and many other assemblies offer experiences that broaden the horizons of the student; arouse new interests; and develop appreciation of forms of the arts, music, and literature.

One of the intangible elements of assemblies but one of the

most important is the building up of a spirit that impels the student always to do his part. Such confidence has often acted in a striking way to sustain a student who is lacking in self-assurance or who sometimes fails to carry out his responsibilities under other circumstances, suggesting that the assembly has much to offer in the matter of mental hygiene.

In summary, then, it may be said that the assembly has been found to be a particularly effective method for helping children achieve certain aims of the school: (1) development of individual initiative, (2) development of group cooperation, (3) unification of the student body, (4) integration of appropriate subject matter, (5) development of experiences in democratic living.

The Christmas project, an important undertaking of a subcommittee of the Students Organization, exemplifies the way in which one all-school experience may provide for the working out of school aims. To provide Christmas for underprivileged children throughout Delaware, the Christmas Project, under the direction of our Civics and Welfare Committee, has for several years enlisted the services of the entire school in caring for 100 wards of the Children's Bureau. In addition, grades throughout the school provide not only toys but food and clothing for individual families and school groups. Most of the gifts are made by the students in the Shop or the Domestic Science Department. The distribution is carried out under the supervision of authorized social agencies. In some instances the provision of food for a family is continued throughout the year.

The constitution of the Students Organization provides for an all-school magazine, the *Dial*, governed by a directing board of students and a faculty adviser. Perhaps the most important aspect of this publication is the fact that the student board has evolved into a group almost independent of faculty supervision.

In the junior high school and the Lower School, student publications grow up as part of the classroom work, and have been effective means of achieving classroom and school goals.

Likewise the Pooh Store, first established to meet the need in the school of suitable afterschool refreshment, has become part of the seventh grade curriculum, furnishing experience in telephoning, in dealing with the public, in quantitative thinking

and accounting. It has also been a forceful agent for unifying the group operating it.

The Student Store and Student Bank, both run by students assisted by faculty advisers, serve educationally to train students in keeping accounts and handling money, an essential part of the program for the development of skills and judgment.

To seniors the school offers an experience planned to assist them in adjusting to the greater freedom of college life. For the use of those members of the senior class who can benefit by it, a special room is provided where they may have opportunity to accustom themselves to freedom from supervision. Accordingly, certain members of the class are chosen by a committee, composed of faculty and class representatives, to be given this freedom. This joint committee revises each month the list of seniors who are to use the senior room. The chief criterion is not a disciplinary one, but rather the student's ability to prepare for his classes without faculty supervision.

The senior room is not intended primarily to be a study room, but is to be used for such social purposes as will not interfere with the smooth functioning of the school as a whole. Students having the senior room privilege are free to study elsewhere in the building—in study halls, library, or any vacant room.

The traditional Gilbert and Sullivan opera is the outstanding musical event of the year. It represents a complete fusion of the arts, as well as an experience providing for the development of school aims. A major part of the Upper School student body participates, not only as members of the chorus and cast, but in the designing and building of scenery, make-up of characters, and management of stage properties.

A study of significance in the school as a whole was the Motion Picture Project. Under the supervision of the Motion Picture Project of the American Council on Education, Tower Hill School carried on a program of using and evaluating motion pictures as study materials in all groups and classes from April, 1938, to June 1939. Motion pictures were shown and discussed, and reactions of students and teachers were reported by an observer. Teachers and students of all curriculum areas evaluated these pictures individually in terms of the purposes for which

they were used. Materials and records collected during the time of the project were then analyzed and summarized by the teachers, and their findings were incorporated in a carefully written report to the American Council on Education. This report has been published in book form <sup>2</sup> as the first of the Council studies on the educational use of motion pictures.

Although motion pictures had been used for many years as an incidental part of the educational program of the school, no attempt had been made to secure and record student responses to this educational medium. The evaluation program of the Eight-Year Study, with its plan to discover new ways of getting objective evidence on the accomplishment of aims in terms of specific purposes, gave considerable impetus to the plan to enter the Motion Picture Project, for it was thought that valuable evidence in the areas of appreciation, critical thinking, and cooperation might be gathered through the experimental use of films in serious study situations. The project at Tower Hill, one of five centers for this use of motion pictures, was set up informally as a test center rather than as a controlled experiment. Consequently, the results of the study, though significantly suggestive, are tentative rather than statistically final. They do point definitely to valuable possibilities in the use of new types of visual materials for stimulating productive responses in a wide range of curriculum areas.

From the above descriptions of special group activities it may be seen that experiences not directly connected with the classroom may contribute toward achieving school goals as effectively as the curriculum itself. The development of skills, critical thinking, social cooperation, appreciation, mental and physical health, is the chief concern of the faculty in all aspects of school life.

#### EVALUATION: EFFECTIVENESS OF THE PROGRAM IN TERMS OF ITS PURPOSES

In the section entitled "Overview of the Total School Program," a brief outline of the purposes of the school is given. Throughout "Significant Developments in the School" an attempt is made to

<sup>2</sup> See page 611.



suggest specific activities, curricular and extracurricular, through which we hope to achieve these purposes. In this, the final section, we shall point out certain methods of evaluating our success in reaching these goals.

The evaluation program has two main functions: first, it should appraise the learning products of the institution and, second, it should indicate the strengths and weaknesses within the institution so that improvement may be attempted. It is important that the evaluation scheme provide data concerning as many pertinent aspects of the student as possible, so that his whole development may be brought under careful scrutiny.

Since the school has chosen the five major objectives of social cooperation, appreciation, critical thinking, physical and mental health, and skills, it is natural that one of our most important considerations should be the appraisal of the development of students in these areas. Therefore, yearly summaries of such development for each student are made in paragraph form. Compilation of the summaries is initiated by the home room teacher, who usually bases each new report upon the report of the preceding year. At his discretion he may gather additional information from other teachers, incorporating all in a detailed description of the student's behavior as it refers to the five objectives.

Objective tests for evaluating student behavior under such objectives as social cooperation, health, and appreciation are either lacking or not satisfactory. Instead, the faculty developed statements of types of behavior which would be acceptable as evidence of desirable traits in these areas. These statements, formerly used as check lists or questionnaires by the teachers in forming their evaluations, are now used only occasionally, having been replaced by a more informal set of standards implicit in the work of the individual teachers.

The description written by the home room teacher must be proofread, annotated, and signed by at least three other teachers of the student before being complete. At one time this report was abstracted and mailed to the parents; but more recently a conference has been arranged at the school for the parents of each student, at which time the report is discussed by the home room teacher. A record is kept of the parents' significant comments and

of important exchanges, to be filed with the report itself. These documents constitute the basic evaluation instrument, to be used in reports to colleges and other institutions, in all individual guidance work with the students; they are also used to point out institutional weaknesses for possible remedial action. This approach has helped to indicate many of the "unsolved problems" mentioned earlier, and has been instrumental in effecting some of the tentative or partial solutions under which we are now operating.

In order to provide adequate data for these evaluation reports, for the permanent record cards and for the quarterly reports to parents on achievement in the various courses, a number of types of evaluative instruments and procedures are employed.

In April, 1938, a battery of such evaluation instruments was suggested for use at Tower Hill School by the Evaluation Staff. The tenth grade students took all of these, and the other high school classes took one or more of the same tests. In October, 1939, a similar battery was administered in the twelfth grade, thus affording a complete retest of all students originally tested in the tenth grade. In both cases the battery included the following tests: Application of Principles, Interpretation of Data, Proof in Mathematics, Nature of Proof, Social Problems, and Scale of Beliefs.

Both groups of tests were corrected by the Evaluation Staff, and both sets of results were explained in detail to a representative of the school by members of the Staff. In one instance a school representative spent several days with the Evaluation Staff for this purpose. A similar period had earlier been spent with the Staff in studying the construction, administration, and interpretation of such instruments.

Throughout the past eight years the school has used two other standardized tests uniformly in the four upper grades. The American Council Psychological Test results, together with the independent school percentiles compiled for this test by the Educational Records Bureau, have been obtained and recorded each fall for each high school student. The reading test recommended by that agency has been similarly employed each year. In the seventh and eighth grades the Educational Records Bureau

recommendation has been followed for a battery of achievement tests and for a separate reading test, the former administered in April or May, the latter in November.

No other standardized test has been used uniformly, since all testing other than the above-mentioned items is done by the individual teachers, using whatever standardized tests they may choose in consultation with the headmaster. Every teacher has used such additional testing material, but this part of the program has varied from year to year according to individual needs. Most of the standard tests used have been those issued by the Cooperative Test Service.

Teacher-made tests have remained an important feature of the evaluation program. Increasing use has been made of objective forms, though the essay type accomplishes certain purposes not satisfied by any short-answer instrument. Some of the teachers have developed tests for specific measuring purposes, and have received suggestions and helpful material for this work from members of the Evaluation Staff.

In summarizing this section on evaluation of the Eight-Year Study at Tower Hill School, these significant features should be emphasized:

1. Unlike many other schools, Tower Hill proceeded within the framework of the curriculum which was in process of development at the time the school entered the Study. Consequently, its curriculum changes are not as sharply defined nor as revolutionary as those of some of the cooperating schools. Changes of emphasis and approach, and increased teacher cooperation, have been stressed rather than changes of content, although the content has been broadened, enriched, and modified as a result of the more satisfactory techniques of evaluation evolved during the experimental period.

2. The whole-school attention to problems primarily of secondary-school interest has been another significant feature of the Tower Hill participation in the Study. An understanding of new methods of appraisal of educational outcomes has called for a scrutiny of the curriculum and evaluation practices in the levels below the secondary school, and has made for whole-school consciousness of growth in these areas as well as of unsolved

problems. In other words, the study at Tower Hill has clarified the problem of integration of the Upper School with the Lower School, as well as with the college.

3. Improvement in the quality of teaching and growth in the ability of the staff to work as a group are important gains. This report was written by the staff, and has been another means of clarification and unification of the philosophy of individuals into a general school philosophy regarding desirable curriculum trends and techniques of evaluating them. Tower Hill has preferred to sacrifice the tangy freshness of individuality of style in order to secure the benefit of a cooperative writing project.

# TULSA HIGH SCHOOLS

## TULSA, OKLAHOMA

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Tulsa, with a population of 141,258, is known as the "Oil Capital of the World." Five hundred and forty-six oil companies and operators make their homes in Tulsa. The town is second only to New York as a financing center for oil field operations.

Most Tulsans derive their income either directly or indirectly from the oil industry. Thousands of executives, technicians, geologists, draftsmen, accountants, brokers, clerical workers, supply manufacturers and distributors, mechanics, and refinery employees live and transact their business in the city. Many have become wealthy through oil, and others, once wealthy, have seen their fortunes disappear into "dry holes."

Industries not allied with the oil business include about sixty wholesalers of food and kindred products; more than fifty printing and publishing firms; about twenty metalworking plants; a dozen manufacturers of textile products; and more than a hundred companies producing chemicals, tools, machinery, forest products, brick and tile, plumbing supplies, and technical instruments.

Less than 1 per cent of Tulsa's population is of foreign birth. There is a small Mexican settlement in West Tulsa near the oil refineries, and another northeast of the city near a strip mining district which covers several square miles. In addition to the Mexicans there are a few Greeks and one or two Japanese and Chinese families.

According to the 1930 federal census, 10 per cent of the residents of the city are Negroes. They live in a segregated district in the northeast section of the city. They have their own hotels, park, places of business and amusement, municipal hospital, and churches. Their schools are under the supervision of the same superintendent and school board as the white schools. Their educational centers are located in their own district and their

teachers are Negroes. Their buildings and equipment are equal to those of the white schools.

The city is located in a broad valley with low rolling hills to the south and east. During the last few years some very beautiful estates have been laid out in the hills. Hundreds of small-acreage homesteads also dot the edges of the city on all sides. As a whole the people are well housed. The great majority live in one-family homes. Since practically all its buildings have been erected within the past twenty-five years, and since natural gas is its only fuel, Tulsa gives the visitor from older, smoky cities a startling impression of newness and cleanness. It looks as though it had been built yesterday.

The religious and cultural interests of the community have been fostered by energetic citizen groups. The townspeople actively support many beautiful churches of all denominations. Many thousands attend services regularly. The Philbrook Art Museum was opened a year ago and is filling a long-felt need in the cultural life of the community. Civic musical organizations sponsor the Tulsa Civic Symphony concerts and other musical attractions which are well attended. Every major theatrical attraction that has toured the country since 1910 has played in Tulsa. Many organizations sponsor a number of lectures each season. Library facilities have not kept pace with the growth of the city. The budget is inadequate and services are limited.

### *Education*

The Tulsa public school system for white children now includes 3 senior high schools, 7 junior high schools, and 36 elementary schools. The separate Negro schools include 1 senior high school, 1 junior high, and 3 elementary schools. There are opportunity schools for the physically and mentally handicapped. A public school teacher works with the crippled children in the Junior League Home for Crippled Children.

In addition to the public schools, Tulsa has several private institutions and a number of parochial schools. The University of Tulsa is a privately endowed, nonsectarian, coeducational institution. Its College of Petroleum Engineering is nationally known. There are also several business and secretarial schools.

Educators in Tulsa have been faced with some problems which are peculiar to the local situation. The character of the oil business is such that people concerned with it tend to migrate from one oil field to another. This shifting population has created an educational problem. Pupils are constantly moving in and out of the city and from one school to another. Another characteristic of the town has been its steadily aging population. In the twenties one rarely saw an old person. Tulsa was a community of young people with little children. Today the weight of the population is middle-aged. This fact plus the noticeable decrease in the birth rate is completely changing school population figures.

It is estimated that about 40 per cent of the graduates of Central High School enter college, about 32 per cent of Will Rogers, and about 7 per cent of Daniel Webster. Perhaps the most important fact about the Tulsa schools is that during its "boom" period Tulsa had one of the highest teachers' salary schedules in the United States, and selected applicants so wisely that it built up one of the ablest, best-trained, and most professional teaching staffs in the country. When oil collapsed during the depression, the high salaries and moderate teaching loads vanished; but not the good teachers, for conditions were then no better elsewhere. The dominant impression of a visitor to the Tulsa schools is that here are people who know their business, far above the level of ordinary common-sense competence.

The complete report of the Tulsa schools' participation in the Eight-Year Study is a printed volume of 140 large double-column pages. It includes almost all the reports of the innumerable committees of teachers who developed the experimental program, and so preserves the freshness and reality of working documents that were actually used at various stages of the program. Such material, however, is very difficult to condense to the limits set by the general report; for it forms a large-scale mosaic, and little separate patches of it lose the design.

The reader of these excerpts from the Tulsa report is urged to keep in mind at least this much of the whole picture: that Tulsa had already gone about as far as a large public school system can go in the "vertical" organization of broad fields of study.

Supervisors were responsible for the twelve-year program in their fields, and highly trained committees of teachers were continuously producing and revising courses of study in these areas. The Eight-Year Study coincided with the swing of the pendulum toward more "horizontal" organization—orienting most of the work of a grade toward a few broad problems, suggested more by the concerns of children at this age than by logical progression through a field of study. Eventually both forms of organization may be achieved simultaneously, but this report reflects the current concentration of interest upon the latter.

#### THE ORGANIZATION OF EXPERIMENTAL PROGRAMS

While the new program developed in various ways in different schools, the following illustrations are fairly typical of what happened in the Tulsa schools under the impetus of the Eight-Year Study.

##### *"Little Schools"*

Five seventh grade classes at Woodrow Wilson Junior High School were selected for intensive experimentation during the year of 1937–1938. Approximately 480 sixth grade children had been promoted to that junior high school. A study of their test records showed that the lower sixth of the group were so far below the seventh grade level that it seemed desirable to provide special instruction. Accordingly, they were scheduled in two classes averaging 35 pupils each. Each of these groups was assigned to one teacher for half a day for the so-called "academic" work, in which personal neatness, cleanliness, and ability to work cooperatively with others were stressed. This teacher also devoted much time to reading, arithmetic, and oral and written expression. The second half of the school day of these youngsters was spent in nonacademic pursuits—art, home living, and industrial arts.

Just as the lower sixth were below seventh grade level, the upper sixth (two classes) were considerably above seventh grade level. These were designated as Group I. This left four classes who were average and above, designated as Group II, and four



classes who were average or below, designated as Group III. These ten classes were divided into two "little schools" of five classes each. In each "school" there was one class in Group I, two in Group II, and two in Group III. One block was known as the "A-C School"; the other, as the "B-D School."<sup>1</sup> One group of teachers was to be concerned with the academic pursuits of all the children in a "little school." This arrangement was a step toward more and better guidance. It provided for more effective study and treatment of pupils by means of staff conferences.

When Wilson School was asked to enter the experiment, the "B-D School" was selected to be the experimental group. The "A-C School" was not a control group, for teachers of that "school" were encouraged to observe trends and results in the other group and to modify their own program as they saw fit.

The "B-D School" was scheduled to experienced teachers of English, social studies, science, mathematics and art, who were interested in the experiment and who understood the philosophy and objectives which had been set up by the Steering Committee during the previous year. The principal and assistant principal were sympathetic toward their work and never failed in understanding, encouragement, and effective leadership. Staff members not involved in the experiment willingly assumed extra duties so that teachers of the experimental group might devote their entire time and attention to the project. The attitude throughout the school was that these teachers had a difficult job to do and that everyone should help whenever possible. The faculty had full understanding of the purposes of the experiment and began to look forward to the time when all classes might be involved in procedures similar to those being carried on in the B-D group.

*Guidance.* In order that teachers of the experimental group might know and understand the boys and girls with whom they worked as intimately as possible, each teacher became home room counselor for one-fifth of the pupils in each of her classes. This created a heterogeneous home room grouping which broadened the children socially.

Up to this time a class sponsor had handled many of the

<sup>1</sup> A-C and B-D have no significance as abbreviations.

guidance problems for each grade. Beginning with this seventh grade, guidance became a major concern of every classroom teacher. The home room counselor was a source of detailed information concerning the pupils in her group. She set up a file for them into which went comments from teachers concerning exceptional pieces of work, evidences of desirable or undesirable social behavior, health records, test scores, anecdotal comments of all sorts. At some time during the year each counselor made an appointment with one or both parents for a conference concerning each pupil in her home room. After the interview a short report of significant information was written and placed in the child's folder.

*Staff Conferences.* A staff conference of all the teachers of the experimental school at a single period within the school day was impossible. Accordingly, classes were scheduled to special teachers during one period, and the academic teachers had their conference period at this time. It was possible for the art and music teachers to attend the conference on alternate days. The physical education and library teachers could attend only when special provision was made for their classes. It proved to be very fortunate that both the art and music teachers of the experimental group could attend the conferences with regularity because they utilized the problems under consideration as a means of motivating their subject matter. In fact, the art teacher changed her entire procedure with these students. They were given much freedom, and their drawings, which reflected their creative thinking in relation to the problems under consideration in other classrooms, were strikingly individual and colorful. She reported at the end of the year that their technical skill was in advance of that of regular classes.

### *"Blocks" in the Senior High School*

The 200 accelerated students who had been chosen by their ninth grade teachers to participate in the tenth grade experiment in the fall of 1937 were enrolled in "Social Relations" (two hours) and physical education or a creative activity. This arrangement provided three hours in what was known as the "block" and three hours for electives.

The plan of the course as set forth in an advanced enrollment bulletin was as follows:

1. All students will enroll in "Social Relations" for two periods. Social Relations deal with problems based on the needs and interests of tenth grade boys and girls. The particular problems studied will depend upon the group as a result of teacher-pupil planning. The course has as its objectives: (a) the personal development of the child; (b) the development of understandings, skills, attitudes and appreciations essential to effective living in a democratic society; and (c) the development of the skills of communication and expression.

2. Physical education will be required of all.

3. Each student will be required to enroll in a creative or "doing" subject. Such subjects are: instrumental and vocal music, art, foods, clothing, mechanical drawing, woodwork, auto mechanics, printing, and electricity. Students who desire to enroll in both instrumental and vocal music will need special permission from the class director.

4. It is understood that college requirements need not be adhered to by students in these groups. While some 284 of the leading colleges and universities have agreed to accept the graduates of the P.E.A. groups of the Thirty Schools without college entrance requirements, students who are planning to enter technical schools or special professional schools should plan their high school course to meet the requirements of those schools.

In regard to credits, administrators agreed that students should receive credit for "Social Relations" according to the time scheduled for the course—two credits for a two-hour course.

Some flexibility in the schedule for teachers and pupils in the experiment was made possible. Three teachers (English, social studies, and science) devoted their entire time to the project. Two very large classrooms were assigned to them, and the 200 pupils were divided into three groups. The plan included a conference period for the teachers involved. Each teacher was supposed to have one-third of his or her teaching time free for the writing of reports, individual study, and planning. For example, one of the units studied was Health. While the teachers of social studies and science engaged in the teaching of the unit, the English teacher had this time for research and study. At times during the planning of a unit, all three teachers would be in the classroom at once.

In her annual report for 1939 Miss Lavone Hanna described these procedures as follows:

Sophomores spend two consecutive hours in Social Relations. The third hour of their core program is spent in a creative subject of their own choice. The teachers who work with them in Social Relations are specialists in English, sciences, social studies, and home economics. When a new problem is under consideration, these five teachers discuss its possibilities in the conference hour and do the preplanning necessary before taking it up with the class. The actual planning of the unit is done in the classroom with one or more of the teachers participating. All of the teachers are made familiar with these plans during the following days and each makes a contribution from her special field either to the planning of the problem, so that all aspects pertinent to the solution of the problem will be considered, or to the actual teaching of the problem.

In studying Health, the science teacher taught problems dealing with the care and use of the human body which are of significance to youth in keeping healthy; the home economics teacher limited her contribution particularly to the relation of diet to health and to personal appearance; and the social studies teacher was concerned that the students saw the relationship between individual health and community health problems. Skill in presenting material in either written or oral form was the concern of the English teacher, as were the quality and quantity of the reading which was done in connection with the problem. Since the period was two hours in length with approximately seventy students scheduled in two rooms, considerable flexibility could be maintained in the handling of the group. Both students and teachers were concerned not only with the functional information which students acquired concerning health but also with the attitudes which they were developing; the skill with which they could read and interpret data of all kinds; their ability to analyze problems, to collect and organize data, to draw sound generalizations, to apply social and scientific principles to new situations, to think critically, and to be aware of and willing to do something about social problems.

#### ILLUSTRATIVE UNITS AND PROBLEMS

The following units, projects, or attacks upon pupil problems were selected, from the large number included in the complete Tulsa report, as fairly representative of pupil activities in the experimental groups at both junior and senior high school levels.

### *Home and Family Life*

The unit on Home and Family Life grew out of the mathematical study which seventh grade boys and girls made of their necessary school expenditures during the orientation period. They worked out their own personal expense budgets and kept individual records of their daily and weekly expenditures.<sup>2</sup>

This personal accounting aroused interest in the ordinary expenses in the home, and grocery buying became a topic for discussion. Boys and girls clipped grocery ads from the daily papers, compared the prices of various commodities, made grocery lists, and computed the cost per week of a well-balanced food budget in the home.

Naturally the cost of other necessities in the home came up for discussion. Following are a few of the typical problems listed:

1. How can I help with the clothing problem in the home?
2. How can I help with the operating expenses in the home?
3. How much do my pets cost my parents?
4. How can I help to make my home more attractive?
5. How can I help with the care of the yard?
6. How can I learn to assist with the entertainment of our guests?
7. How can I help to plan for a vacation?

One class listed and classified home expenditures as they saw them. They then divided themselves into committees to obtain information on the expense occurring in each group of activities and report their findings to the class. The outline presented by these boys and girls remained on the board in the mathematics room during the day. Other classes coming into the room became interested in this development of the financial problem, and all of the 200 pupils in the experimental group decided that they, too, wanted to study some aspects of the problems suggested in the outline.

All of these problems were desirable and, since not all could be covered, pupil interests and time limitations controlled the

<sup>2</sup> The remainder of this section is quoted from "Seventh Grade Source Unit, Home and Family Life," by Teachers of Experimental Groups in Woodrow Wilson Junior High, 1938.

number and types studied. For instance, the boys and girls were all intensely interested in pets and a very desirable problem could have been worked out with pets as a center of interest. However, the study of vacations was also very interesting to them, and they were encouraged to develop that at some length because they were sadly in need of a better knowledge of place geography which entered into this problem very naturally. . . .

Many desirable outcomes were evident as the study of the final problem in the unit drew to a close. The projects produced in the art room revealed deeper understanding and greater freedom of expression in both color and technique than is usual in seventh grade children. Wide use of library facilities was motivated by student curiosity in fields of knowledge in which no textbooks were available at their reading level. Working in committees and presenting their findings to their classmates in panel discussions developed noticeable poise, self-direction, and self-confidence.

*Evaluation.* Pupils in the experimental group were given the same tests administered to other boys and girls during the school year. These included the Stanford Achievement Test and the 1938 Iowa Every-Pupil Test of Basic Skills. In addition, they took tests made during and following the Progressive Education Evaluation Workshop which was held in Tulsa, November 8-13, 1937. Many tests of factual information and study skills were given throughout the year. Teachers and administrators became convinced that the mental and social growth evidenced in these boys and girls indicated that further experimentation on a wider scale was desirable.

### *The Meaning of Democracy*

The need for a clear understanding of the meaning of democracy became evident to the tenth grade Social Relations students in Tulsa Central High School during the study of student government which was part of the orientation unit. The terms "rights" and "liberties" were used by the students during the discussion with apparently little recognition of the responsibilities or obligations which those liberties imply. However, as the orientation unit progressed, the students became con-

cerned with the effect of health on personal appearance; so Health was the problem which they selected for their next unit. Nevertheless, the problem of "What Democracy Means" was a persistent one and became an issue again and again during the discussions of current happenings as well as during the study of the need for food and drug legislation and for socialized medicine.

In February, Maurice Evans came to Tulsa in *King Richard II*. This seemed an unusual opportunity to introduce tenth grade boys and girls to the joy and pleasure which an acquaintance with Shakespeare's plays would bring them. The fact that copies of *King Richard II* in student editions could not be secured, and that the advance agent for Mr. Evans, in true salesmanship form, advised the students to see the play first and read it afterward, did not lessen enthusiasm for the project. Handsomely bound copies of Shakespeare's plays appeared in the classroom, old copies were lent by friends, secondhand bookstores were searched, and enough copies for class reading were finally collected. Perhaps it was well that no student editions could be had, for neither footnote nor editor's interpretation interfered with the reading of *King Richard II*.

The historical background for the play was carefully laid, and the relationship between the characters was clearly understood before the reading of the play began. As the reading progressed, interest in the play grew until one boy said, "I never know when the end of the class period comes." The culminating activity was attendance at the production. Over 50 per cent of the students saw the play. For some of them it was the first professional play they had ever attended; for many it was an introduction to Shakespeare; for all of them it was an educational and cultural experience keenly enjoyed. Shakespeare became the favorite author of many of the boys and girls; practically all of his plays were read at home, and reports of them were given in class.

During the reading of *King Richard II* the interest had focused on the characters, not only as Shakespeare portrayed them but as history knew them. Characteristics of the tyrant and the dictator, the harsh treatment of the people in comparison with con-

ditions today, raised again the question of liberty, justice, and equality and the actual meaning of those terms.

The class decided that one way to find out the meaning of democracy was to ask adults in Tulsa what democracy meant to them. Each student undertook to ask five persons from five different walks of life that question. By pooling the responses, they believed they would have a composite definition of democracy.

When the classes met on the day following this experiment, consternation reigned. The students had been bewildered from many sides with such definitions as:

"Democracy means the right to vote."

"Democracy used to mean something, but it doesn't any more."

"Democracy means to do and say what one wishes to do and say."

"A government of the people, by the people, and for the people."

"Democracy doesn't mean very much."

"A perfect government that will never be achieved."

"Freedom of speech, freedom of the press, freedom of religion."

Some students were unable to get definitions, for the persons whom they asked either were unwilling to answer or had no tangible conception of the meaning of democracy. Practically no definition referred to the social or economic aspects of life.

This experiment proved so unsatisfactory that the class decided that they could not rely on friends or acquaintances for a clear understanding of the meaning of democracy. Some other method of attack was necessary. Members of the class suggested that they might find out what democracy means by investigating:

1. What the Founding Fathers believed democracy meant.
2. What the leaders in American life today believe are the principles of democracy.
3. What the Declaration of Independence says about democratic principles.
4. What principles of democracy are stated in the Constitution.



5. What principles of democracy were used by the Greek city-states.
6. How democracy actually works in America today.

With such a list of problems it was not difficult to decide on a method of attack. Some students wanted to start with definitions; others wished to find out first what the leaders of American life today believe are the principles of democracy; the majority preferred the historical approach and wanted first to find out how democracy worked in ancient Greece. It was finally decided that each student should make his own list of definitions as the study progressed; that the historical attack should be made under the directions of the social studies teacher, and at the same time, under the guidance of the English instructor, the opinions of leading American writers and statesmen should be read and analyzed.

### *Cherokee's Problem House*

One interesting problem which the general education classes of Cherokee School tackled, and which called for close cooperative planning among all groups, was helping to plan the renovation of an old farmhouse.

Mr. and Mrs. X, a young married couple, both employed, bought a ten-acre "farm" in the community. The place had previously been rented for a number of years and had been so neglected by its owner that it was extremely dilapidated. Mr. and Mrs. X, endowed with more imagination and enthusiasm for the fine country air than money, saw some possibilities in the place. Some neighborhood general education students saw in it the possibilities of a made-to-order workshop.

Having obtained the consent of Mr. and Mrs. X to visit the farm and to make of it a general education project, both students and teachers set to work. They went to the farm in groups, took notes as to the condition of the land, which was washing badly and was in need of terracing; of the fruit trees, which were in need of pruning; of the lawn, which was no lawn at all, but an overgrown mass of flowers and shrubs which had apparently "just grewed" like Topsy. The house presented the hardest

problem. At first glance, even the most imaginative student was dismayed. "What could ever come of this shack?" "Why would respectable people like Mr. and Mrs. X, with reasonable incomes, want to live in a place like this?" Some of the windows had no facings at all—only pieces of orange crates nailed here and there. One window had oilcloth nailed over it where the pane should have been. The room used as a bedroom had at one time been a garage. The garage doors were still standing, and worn green roller shades were still hanging to the upper glasses. The floors were uneven, warped, and daylight could be seen through some of the cracks. The beaverboard walls were warped and smoky, and two of the three rooms had no baseboard or molding at all. The house had gas but no electricity. Water was carried from a near-by well.

After carefully measuring the rooms, the groups returned to their school to talk things over. Bill volunteered, from his notes, that the house did have a good roof. Finally, Anne volunteered that if the house were painted—white, preferably, with maybe some green shades—it might not look so bad. "Come to think of it, the general shape of the house was good; it didn't sag or lean especially." From there on ideas started thriving. They believed something could be done with that old place, after all! "Wouldn't a peasant-style kitchen be cute!" "Do you suppose Mr. X would let us help prune the trees?" "Light wallpaper would make the rooms seem much larger and lighter." Work was under way!

With a budget of less than \$200, assigned by Mrs. X, the girls planned furnishings for three rooms, and did the job on \$180. The living room and the bedroom were furnished in maple, with knotty pine linoleum as floor covering, with green and russet tones in upholstering and accessories. The girls learned that pinching pennies is a fascinating art; and, time and time again, they were called upon to weigh values. For example, unbleached muslin when trimmed in colonial ball fringe from the dime store made lovely and practical draperies which served as curtains as well as shades. They discovered that an old wing chair and a small three-legged stool when covered with gay cretonne, at a cost of \$1.50, were good economy. They sensibly concluded that

to ease the budget by buying a \$12.50 used range was folly when a reliable furniture company announced that a good standard table-top range, which regularly sold for \$40, could be bought for \$30. Further, they found that this was a term price; and Mrs. X, by paying cash, secured a good stove for \$27.

The budget had to be compensated some way, so the girls canceled their plans for a maple dinette and buffet which was to have gone at one end of the kitchen and took up their original idea of a peasant kitchen. A sturdy beechwood dinette with red leather chairs didn't cost as much as maple, and the buffet idea was mostly for ornamentation anyway! Imagine their joy when they discovered, while ambling through a used furniture store, a red-lacquered buffet for only \$4!

It should be explained that Mrs. X, before setting her \$200.00 budget, had listed her sole household possessions as: a good spring and mattress, an electric refrigerator, an electric lamp, an overstuffed chair, and a small radio. Also, Mr. and Mrs. X planned to build a new home in a few years, in which case this house would be rented. Otherwise they would have felt it wise to spend more money for more durable and permanent furnishings.

Here was an opportunity offered to students from, on the whole, what we call "middle class" and poor homes to face a problem very similar to that which they might be called upon to face as adults. Those from extremely poor homes were inspired by the results of careful planning, industry, hard work, and the expenditure of very little money. Mr. X. did all of his own carpenter work, painting, and paper hanging without having had any more training in such arts than the average man. Emphasis was given here, however, to the fact that the hiring of skilled labor is cheaper in the long run where it is possible for people to pay for such service. Mr. X, in lieu of such diversions as stamp collecting, golf, and similar hobbies, looked upon his endeavors as recreation from office routine.

It would take a complete volume to list the many details and fields of study into which this activity led the classes. The art room was visited time and again for sketches of room plans (the mechanical drawing instructor had to help here, too), for color harmony, for designs and their relationships to each other, and

for countless other bits of advice that only the art teacher could give. The science teacher assisted with their landscaping problems, but didn't stop there—he also aided with any problem with which he could give assistance. The shop instructor turned out to be an expert in the business of pruning trees, and gave the boys not only instruction but actual experience in tree pruning and tree surgery. (Incidentally Mr. X reports a fine fruit season!)

The original question raised by the students as to why people with good incomes should be content with a house so unpromising led to some excellent research and discussion on family budgeting and finance.

Briefly listed, these are a few of the areas of exploration into which the X farm led the students: installment buying; charge accounts; methods of shopping; types of work one can do at home to save the family pocketbook; a list of the essential needs of a home; a list of things considered as luxuries; reading of magazine articles, novels, and poems concerning the needs of the home; comparison of cost of ready-made and homemade articles; study of possible fire hazards; figuring costs of plumbing and wiring; consideration of factors other than money in figuring the needs of the family; study of insurance problems; use of simple tools for home repair; arrangement of furniture for beauty and convenience; lighting needs of a home.

#### CHARACTERISTICS OF THE EXPERIMENTAL PROGRAMS

##### *Overarching Theme*

Most local teachers agree that in a system as large as Tulsa some limitations must be placed upon group curriculum planning. The majority think that while an overarching theme for a grade enforces a certain degree of uniformity its scope is broad enough to permit the free exercise of pupil-teacher planning. They favor the setup because:

1. The overarching theme gives teachers and pupils a starting place.
2. It causes concentration of objectives and activities within one area.
3. It makes better provision for pupil integration.

4. It permits freedom for teachers and pupils in choice of subject matter.
5. It is invaluable for the inexperienced or new teacher.

The drawbacks commented upon were:

1. Tendency on the part of some teachers to use suggested theme units as a course of study.
2. Duplication, especially in the seventh grade unit on Home and Family Life and the senior high school unit on Consumer Economics, in the field of home economics.
3. Overarching theme too general.
4. Too much repetition in the child's program.

### *Cooperative Faculty Planning*

Teachers strongly favor teacher planning rather than prescribed courses of study. Some of the reasons advanced are:

1. The big advantage of teacher planning against a standardized course of study is flexibility.
2. Planning as we progress gives us a chance to take care of the real needs of the children.
3. The work can be adapted to the particular situation in hand.
4. There is less overlapping of subject matter.

The few objections raised are:

1. Loss of time in getting to work.
2. Necessity for much preplanning.
3. A course of study does aid a new teacher.

Practically all teacher planning groups are made up of instructors of one grade level and several cooperating subject matter fields. Planning in specific subject areas is carried on by groups of teachers of that subject within a building, alone or with the subject matter director. Teachers are well pleased with this arrangement. They believe that it unifies procedures and tends to keep the various groups somewhat together as to content.

### *The Block Schedule*

In considering the block schedule, with its planning period, the following points have been suggested directly or indirectly by senior high school teachers:

1. It affords a better opportunity for teachers to become im-

bued with the real purposes of public school education. When small groups of teachers are frequently confronted with such problems as "What is best for this group?" or "What is the best method of attacking this problem?" or "Have we achieved our purposes in this work?" a greater opportunity to do constructive thinking is offered.

2. Two, three, or more teachers working together have more opportunity to engage in effective individual and group guidance.

3. Teachers representing different subject matter areas can place more effective emphasis on common objectives such as critical thinking, problem solving, written and spoken English.

4. It allows for greater flexibility in the schedule when a group of teachers have a group of students in common.

5. It stimulates use of more out-of-school learning activities.

6. It allows for concerted effort in the study and for understanding of individual pupils.

7. Personality differences may make the working together of teachers in certain groups impracticable.

8. One teacher may dominate a group too much for effective planning to take place.

9. Concerted effort toward certain common objectives may become monotonous and tiresome through overemphasis.

### *Classroom Techniques in Problem Solving*

A survey of the classroom techniques being used by teachers of Tulsa's experimental groups in 1940 proved that many teachers were utilizing problem-solving techniques in their classrooms. Teacher-pupil planning was carried on to some extent in all general education groups. It is true that the degree to which it was employed varied greatly from group to group. Following are some of the gradations reported by teachers:

1. A teacher, or group of teachers, set up the problem. Students help to plan the activities to be utilized in arriving at its solution.

2. The cooperating teachers set up several possible problems. Pupils and teachers work together in making the final selection of the problem to be studied.

3. The teachers working with administrators determine an area which certain groups of children shall investigate. Pupils and teachers plan together the problems which shall be studied within the area.

4. Through the recognition of pupil needs and interests as revealed in various classrooms, pupils and teachers set up problems suitable for certain groups.

In general, in Tulsa junior high schools, teachers and students tended to set up problems within the overarching theme areas which had already been discussed. In the senior high schools, certain source units were set up as desirable at certain grade levels. As a rule, the problems investigated lay within the scope of the units recommended for the year in which they were studied.

In exploring the possibilities of a problem area, teachers most frequently began with general class discussion and the listing of possible problems. After all suggested problems were listed on the board, the class began to sort, classify, and eliminate. Here cooperative planning, critical thinking, and the exercise of judgment all came into action. After the problem and subproblems had been set up, many teachers assisted students in thinking through the objectives which they hoped to attain by means of the study of the problem. These objectives often remained on the board during the entire time that the problem was under consideration, and were modified or amplified in the light of class experience. Other instructors assisted students in setting up desirable behavior patterns which they hoped to establish. Many teachers did not discuss behavior patterns as such until after the work on the problem was completed.

After a number of possible problems had been selected, the next step was generally a consideration of the availability of reading resources sufficient for the study. Library materials were still the chief sources of learning, but utilization of other sources was increasing.

### *Use of the Skills*

In the solution of the problem and in the presentation of data, experimental techniques which stress individual learnings are widely used in Tulsa. After the problem and subproblems have

been set up, research in special interest areas is carried on by committees of students. In some instances a pupil who has an individual problem works alone. Presentation of the solution of the problem is generally in the form of some type of report.

In classrooms where these techniques predominate, radical changes are noticeable. Each child is no longer required to know everything. Each one is expected to get to the heart of the phase of the total problem which interests him most. In solving his problem he is encouraged to use the medium best suited to his needs. He is very likely to try to read rather widely. He may explore his community and discuss his problem with his elders. He may draw diagrams, or build models, to make his meaning clear or to satisfy his urge to create.

In the carrying out of these procedures the teacher faces many difficulties. The pupil must be counseled so that his problem will be practical and worth while for him. The teacher must ask herself such questions as:

1. How well does the student read?
2. Is he able to avail himself of library resources?
3. Is the material at hand for the solution of his problem?
4. If he does not read well, what can be done to make it possible for him to do the piece of work that he wants to do?
5. How effective are his powers of self-direction?
6. How may his interest in this problem be capitalized so that it may be a medium for improving his skills?

Often the whole class needs instruction in some specialized technique. For example, they may not know how to use the *Readers' Guide* and yet need to use it at this time. The entire class will be given instruction and practice in the use of the *Guide*. Proficiency in the use of the skill is not taught as an end in itself, but as a means of facilitating the solving of the problem. To make drill effective and yet not weaken the interest in the solution of the problem is one of the most difficult devices of the new procedure, and one for which no one here has found a conclusive answer.



## SUMMARY

In the summer of 1937 a group of local teachers working in the Bronxville Workshop developed some classroom source materials which were very different from the old course-of-study outlines. They recommended that new classroom techniques be tried out in one junior high school. A group of 200 "run of the mill" seventh grade students in Woodrow Wilson Junior High School was selected and placed under the direction of an English, social studies, science, mathematics, and art teacher. The group was organized as a "little school." The teachers based their instruction on the needs, interests, and abilities of the students in what was really an "experience" curriculum. The instructors had a period for conference during the teaching day, and became vitally interested in problems of personal guidance as well as in curriculum planning. By the end of the year, the advantages found in the more democratic methods of teacher-pupil planning and increased pupil guidance were so apparent that it was decided that some classes in each junior high school should be organized on the new plan. Schedules were devised which gave greater flexibility. Another group of teachers spent some time in workshops preparing for the next year's work.

The school year 1938-1939 saw the program spread and a solid groundwork laid. Teachers met frequently to exchange ideas and experiences. New classroom techniques stressed pupil participation with the teacher as an adviser. The problem method was generally adopted. Overarching themes were set up for each junior high school grade level. New educational terms were defined and explained. New methods and devices for evaluation were tried out. Teachers concerned were becoming more and more convinced that pupil interest, self-direction, and worth-while skills were increasing as the new methods of attack were more skillfully handled.

In 1939-1940 nearly all pupils in junior high schools and sophomores in senior high schools were scheduled in "blocks" or "little schools." Planning periods for the teachers concerned became general. Pupil-teacher planned classroom problems became the accepted procedure. Curriculum planning became a cooperative

enterprise in which teacher, pupil, and subject matter director participated. As life within the individual classroom became more democratic, life within the entire school was affected. Principals and teachers discussed and decided questions of school policy as coworkers. Student Councils began to function as working organizations rather than as "rubber stamps" for faculty thinking. Adjustments were made in elective subject areas to fit more nearly the needs of the great body of students who had no desire to comply with college requirements.

#### EDUCATIONAL PREDICTIONS

Any attempt now (1940) to forecast future developments may easily become wishful thinking, for it is difficult to prevent flights of imagination from obscuring observation of actual trends. Plans already made for the school year of 1940-1941 give obvious testimony of the way the wind is blowing educationally in Tulsa. Schedules already made reveal increased opportunity for individual guidance, more heterogeneous grouping of students, continued opportunity for teacher conferences, increased number of block groups at the senior high school level, and widespread acceptance of the "little school" idea in the junior high schools.

Curriculum innovations at the senior high school level indicate that a further and more intensive study of elective fields in connection with the general education program is on the way. New elective courses are being offered. Certain courses in geometry and Spanish are planned for the student who is not college material but has an interest in these fields. These are beginnings which will be modified and extended as time goes on.

The spirit with which teachers who had not been participating in the general education program accepted assignments in those groups for next year demonstrated that the foundation has been well laid. Nearly all instructors are ready to agree that experimentation has been in the right direction, and that it constitutes a ferment from which a new and better educational pattern will emerge.

# THE UNIVERSITY HIGH SCHOOL AND THE FIRST TWO YEARS OF THE FOUR-YEAR COLLEGE AT THE UNIVERSITY OF CHICAGO

CHICAGO, ILLINOIS



The University High School is a unit of the Laboratory Schools of the University of Chicago, owned and operated by the University of Chicago for the purpose of developing the science of education through experimentation. This purpose is facilitated by its integration with the Department of Education. The school, situated on the university campus, is housed in two buildings approximately forty years old, both of which adjoin the Graduate Education Building. One of the buildings also houses the University Elementary School.

For many years the Laboratory Schools consisted of a two-year kindergarten, a six-year elementary school, and a five-year high school. In 1933 the last two years of the University High School were removed from the jurisdiction of the Division of Social Science and the Department of Education and were incorporated into the college program under control of the college faculty. This gave a six-year elementary school, a three-year high school (grades VII, IX, and X), and a four-year college (grades XI, XII, XIII, and XIV). The first two years of the college were housed with and administered as part of the high school until October, 1939, although the staff was divided into high school and college members in 1937, and a distinction between high school pupils and college students was made from that date.

The program in the first two years of the college (grades XI and XII) continued to be the former high school program until the fall of 1937, when the "new" four-year college curriculum worked out by members of the college staff and former members of the high school staff went into effect. The first class will complete the reorganized four-year college program (grades XI to XIV) in June, 1941.

In October, 1938, the eighth grade was added to the University High School, so that the organization which was foreshadowed

in 1933 became in reality a 6-4-4 system. One of the principal reasons for adding a year to the junior high school course was to provide greater opportunity for experience in the fine and practical arts, which the faculty felt was cared for inadequately in the former five-year program. Since the extra year was added (1938), the band has been emphasized, personal typewriting has been inaugurated, home arts for girls have been included, and the offerings in fine and industrial arts have been made available to larger numbers of pupils. A pupil who wishes to progress through the high school in less than the customary period may do so if the parents and the counselor agree, and if the pupil can demonstrate his competence to do so. For a large majority of the pupils the four-year program has been standard.

### *Background and Aim of Pupils*

The enrollment in grades VII to XII has remained relatively constant over a period of years. At the present time (1940) there are 270 pupils enrolled in grades VII to X and 240 in the first two years of the college (grades XI and XII). For a number of years from 95 to 98 per cent of the pupils who have finished the work of the twelfth grade have gone on to college. Approximately one-half have entered the University of Chicago and one-half enrolled in other colleges.

About one-fourth of the pupils come from the families of the university professors. The others all live in the Chicago area, nearly all of them in close proximity to the university. The parents are, on the whole, a well-to-do group of business and professional people who are able and willing to pay the \$300 annual tuition fee which is charged in both the high school and the university. These tuition payments constitute a sum which approximates the cost of operating the school. Any deficit between the expenses of operating the school and the actual income is absorbed by the university's general budget. Any balance is likewise appropriated by the university.

### *The Faculty*

The faculty is an unusually well-trained one. Approximately 25 per cent have earned the doctor's degree, 60 per cent hold

the master's degree (or beyond), and 15 per cent have not gone beyond the baccalaureate. The median age is 40. The faculty has published extensively, both books and magazine articles. The teaching load in grades XI and XII has been 16 hours per week for several years. The normal load in grades VII to X is 20 hours, although over one-half of the faculty in the high school have been assigned lighter loads in order to engage in research and the construction of curriculum materials. The average pupil-teacher ratio in 1939-1940 is 15 to 1. The median class size is 27. Classes in the first two years in the college (grades XI and XII) are slightly larger than in the high school (grades VII to X).

### *Attitude Toward College Preparation*

The faculty of the University High School has never considered the school's function to be solely to prepare its graduates to enter college. The administrators and teachers have consistently refused to prepare specifically—to point—pupils for the College Entrance Board Examinations. The faculty has long felt that some of the specific requirements which colleges had imposed could not be demonstrated to be of general value. On this score the faculty was very glad to join in a study of what happened to graduates who enrolled in college after having been allowed to follow a curriculum which varied from the traditional in such fashion as the faculty might decide. It was our hope that the measured results would do much to improve the articulation between school and college.

For many years the University High School has been engaged in curriculum reorganization. Many courses were in 1933 considerably different from those taught as specific preparation for college entrance. Because the administrative reorganization, described above, was impending, the faculty hesitated to join in the Eight-Year Study, but did enter because of the educational possibilities of the Study. It was also decided that all pupils should be included, since the faculty intended to develop the curriculum along the lines which had already been begun. This reorganization referred particularly to social science, in which an attempt was being made to erase subject matter lines and to

develop habits of speaking and writing as part of the study in social science. This program is described more fully in a later section of this report.

### *The Guidance Program*

Until 1934 the guidance program had been carried on almost entirely by the principal and the assistant principal, who conferred with individuals, made contacts with the home, arranged conferences with parents, advised with respect to choice of a college, and performed other functions associated with guidance, except that information about vocations was provided through a course, entitled "Economic Society" which is now required in grade XII and which was elected by a large number of pupils before it became a requirement. In 1934 this guidance program was assumed by a committee of 26 teachers working under the direction of a guidance chairman. In each of the five grade groups one teacher acted as the chairman. In addition, the principal and assistant principal assumed responsibility for guidance with respect to college. Each teacher-counselor was assigned pupils who were enrolled in his classes during the first year that the pupil was assigned to a counselor. The plan was not entirely successful since not all of the advisers were expert in counseling pupils. In 1937 the guidance duties were placed in the hands of five persons (one for each grade). The advisers are relieved from teaching one class to counsel with approximately 100 pupils. Administrative officers continue to counsel with twelfth grade pupils about the choice of a college. In the high school (grades VII to X) it is planned that individual counseling will be supplemented by group guidance through a home room period of 15 minutes, beginning October, 1940. About one-third of the faculty members will be used as home room advisers.

During the entire period cumulative folders, which were installed previously, have been maintained in the central office and the advisers' rooms. Health records, reports to the home, test data, and letters written to or received from the home are available as the basis of study of individuals. In addition, permanent records are kept in duplicate for all pupils. These records are described in a later section.

### *Testing and Evaluation*

For many years tests of mental ability, reading ability, and mathematical achievement have been administered to all candidates for entrance to the school. In 1933 the Cooperative Achievement Tests were first given in English Correctness, Literary Acquaintance, Foreign Languages, Mathematics, and Science. No tests were given in Social Science because the courses taught in the schools differed so markedly from the objectives of the test that the Cooperative Tests were unsatisfactory. The number of Cooperative Tests used has steadily dwindled because they fitted less well the objectives of instruction in the various courses. Beginning with 1940, only the tests in English Correctness and Literary Acquaintance will be used.

In 1938 the practice of giving the tests developed by the Evaluation Staff of the Eight-Year Study was begun. Each year has seen a progressively greater use of these evaluative instruments.

Early in the Eight-Year Study, members of the faculty were active participants in the Evaluation Committees organized by the Evaluation Staff of the Study. They aided in the clarification of objectives, and in a number of cases experimental forms of tests have been administered in the school.

The scope of the objectives covered in the evaluation program includes those involved in the Application of Principles in Science, the Interpretation of Data, Application of Principles of Logic and the Nature of Proof, the Use of Books and Libraries, Social Beliefs, Social Problems, School Attitudes, and Interests, including the instruments developed for the study of Personal and Social Adjustment.

Although this report cannot include a complete summarization of the data obtained in the evaluation program, some indication of the general nature of the conclusions may be given. Some of the groups tested on the ability to interpret data had scores which were about at the average, while other groups were above the average. The eleventh grade group tested in 1939 was particularly high in accuracy in recognizing true or false statements based on data, but was also high in the tendency to make errors which involve going beyond the data, indicating lack of recog-

• nition of the limitations of the data. However, the twelfth grade group tested at the same time was high in general, and there was no marked tendency to go beyond the data. Although the groups were not equated, this suggests that students who had taken the twelfth grade program were capable of interpreting data well.

Scores from Nature of Proof tests given in grades X, XI, and XII indicate that when judging a given group of statements associated with a problem situation the students considered more of them to be relevant than most students do. At the same time, in two of the three grades they were more discriminating than the average in the sense that an unusually high proportion of the statements considered relevant were actually relevant. In judging which of the statements supported the conclusion, the students also selected an unusually high number and again were unusually accurate in this judgment. A similar tendency is shown in their recognition of those statements which are critical in supporting a given conclusion. This implies that these students are more than usually comprehensive and discriminating in their choice of reasons to support the conclusion in logical problems.

Somewhat similar results were shown on a test of the ability to apply principles of logical reasoning. In the eleventh grade the students had a tendency to use many reasons but were not particularly accurate in their ability to use select logical principles from among other sorts of suggested reasons for a conclusion. However, in the twelfth grade in the same year the accuracy was unusually good. In the ability to apply principles of general science in problem situations, general accuracy is again high and inconsistency is low.

The results from a Social Problems test are of interest in this connection. This test was administered in 1940 to the tenth grade only, and not to the groups discussed above. For the group tested, however, there was a relatively low tendency toward comprehensiveness and a rather strong tendency to choose conservative courses of action in social problems. Moreover, there was considerable conservatism revealed by the types of supporting reasons chosen when these are classified according to the



sort of social values they represent. Although these results are not surprising when viewed in relation to the socioeconomic status of the majority of the students, they seem to offer suggestions for a more careful study of the curriculum and evaluation program of the school.

The above statements indicate in a general way some of the information concerning the students which has been made available through the evaluation program carried on as a part of the Eight-Year Study. Results of Interest Questionnaires, of a test on the Use of Books and Libraries, of a School Attitudes Questionnaire, and of other instruments have been used by several of the teachers for the study of individual students. Case studies of a number of individuals, based on the instruments in process of development by the Evaluation Staff, were prepared by the Staff and discussed with the teachers concerned. In conclusion, it may be said that the evaluation program initiated through the participation of the school in the Eight-Year Study may be improved by achieving increased coherence and continuity, and steps to bring this about are being formulated.

In addition, teachers prepare examinations which measure the objectives of the respective courses.

### *Use of Test Results*

As an example are presented two illustrations of the use of tests of mental ability and reading ability and the use of the Cooperative English Test, which are administered annually. The illustrations are chosen from the year 1938-1939.

The median reading score of the ninth grade pupil in the University High School was at the 65th percentile for independent school pupils. In the tenth grade the median score was at the 62d percentile, in the eleventh at the 72d percentile, and in the 12th at the 77th percentile. There was a steady progression in reading ability from year to year, except in grade X, and in every grade the reading percentile is roughly parallel to, but much above, the median scores on the American Council Psychological Test.

One of the purposes of the school is to develop pupils to become increasingly better readers as they progress through the

school. Those pupils who require remedial reading are furnished instruction (see section on the English curriculum). In all of the content courses large amounts of pertinent reading material are provided—some classrooms have over 500 books housed in the room. Teachers use these materials liberally in addition to suggesting supplementary material, both fiction and nonfiction. That the attempt to develop good readers in the school has resulted in marked success is indicated by the illustration. This is a source of some satisfaction to the faculty, as one of the major objectives of the school is to develop superior readers.

The keeping of complete records of the free reading of all pupils in the high school (grades VII to X) and in the first two years of the college until 1939, has undoubtedly contributed to the high reading scores of the pupils. Another contributing factor is undoubtedly the sensitivity of the faculty to problems of reading. This is indicated by the attention given to developing discrimination in the meaning of words and attention to motivating assignments so that pupils begin their study with a strong interest in reading. The interest in reading on the part of the faculty is further evidenced by a Committee on Developmental Reading which is studying methods to make good readers better. The committee hopes to report in the future on methods which have demonstrated their usefulness. Further descriptions of the reading procedures will be found in the section on the English curriculum.

The second illustration indicates the relative rating of the University High School pupils on the Cooperative English Test and the American Council Psychological Test. Again the test results are roughly parallel to the psychological scores and somewhat above them. Such results, we think, are due to the materials of instruction in the classes in English and to the correlation of English to instruction in the content fields.

It is pertinent to remark that the pupils on whom the norms were secured for the psychological tests and the reading and English are overlapping but not identical groups, and to mention that the psychological test was given in October and the English test the following April.

*Success of Graduates*

For the three groups which entered college in 1936, 1937, and 1938, reports on progress and adjustment are available. There are three reports on the 1936 (Alpha) group, two reports on the 1937 (Beta) group, and one report on the 1938 (Gamma) group. The grade point average for the graduates has been compared with that of an equally able group of graduates of other high schools. Of the six possible comparisons, five are in favor of the University High School graduates and one is in favor of the comparison group. Of the five in favor of the University High School graduates, three are statistically significant at the 95 per cent level, one is significant at the 85 per cent level, and one is not significant. The one difference in favor of the comparison group is significant at the 87 per cent level.

*Grade Point Average*

|             | <i>Year</i> | <i>University High<br/>Graduates</i> | <i>Comparison<br/>Group</i> | <i>T value</i> <sup>1</sup> |
|-------------|-------------|--------------------------------------|-----------------------------|-----------------------------|
| Alpha Group | 1           | 2.59                                 | 2.33                        | 4.3                         |
|             | 2           | 3.36                                 | 3.35                        | .1                          |
|             | 3           | 3.10                                 | 2.37                        | 6.6                         |
| Beta Group  | 1           | 2.48                                 | 2.25                        | 3.0                         |
|             | 2           | 2.43                                 | 2.56                        | 1.5 (87% level)             |
| Gamma Group | 1           | 2.32                                 | 2.25                        | 1.4 (85% level)             |

*Group Activities.* In the first semester University High School Gammas list a few more participations and more "likes"—especially in activities which reflect social consciousness, interest in religious and service functions. The comparison group lists many more indifferences in nearly all activity areas.

*Informal Activities.* Except for their first semester in college, the University High graduates list more participations and many more "likes." The comparison group correspondingly indicates more indifferences or dislikes. There seems to be no consistent pattern in regard to the areas of activity except that among the

<sup>1</sup> A T value of 1.96 indicates a difference which is significant at the 95 per cent level. (We have assumed a T of 1.0—and checked it on Alpha group, year 1.)

sophomore group there is found a greater interest in the strictly social activities.

### *Problems Experienced in College*

The University High School graduates regularly indicated more concern than the comparison group with factors such as inability to concentrate, persistent worry, personal manner, and making friends. They seemed to be less concerned over matters relating to organization of time, and the two groups differed little in regard to study difficulties.

*Reaction to High School.* On several occasions the students were asked in different ways to indicate their reaction to their secondary school experience. It was consistently found that the University High School graduates listed more adequacies and fewer deficiencies than the comparison group. Of 44 students in each group, 43 University High School and 25 comparison group students said their high school was good; no University High School and 13 comparison group students said their high school was poor; 1 University High School student and 6 comparison group students said their high school was uncertain. At another time, of 21 students in each group, none of the University High School graduates and 10 comparison students listed no adequacies, while 11 University High Students and 6 comparisons listed no deficiencies. Of those listing adequacies, 14 University High and 4 comparison students gave their background a blanket approval. The graduates of the University High School emphasized the importance of their background in study methods and independent work.

### *The Extracurriculum*

The extracurriculum program has remained relatively unchanged during the period of the Eight-Year Study. A varied program of intramural athletics has been provided for boys and girls. Student participation in school control is provided through a Student Council, which has legislative control of all extracurriculum funds. Publications include a newspaper, the yearbook, and a literary magazine. Assemblies are provided periodically for the entire school and for smaller groups. Interscholastic

teams are maintained in all major sports, except football, for boys enrolled in the first two years of the college. Qualified boys in the ninth and tenth grades may participate. Special interest clubs are available for all who wish to join. The Boys' Club and Girls' Club have provided for many social activities. Over 90 per cent of the student body participates in the extracurriculum.

### *Reports to the Home*

The semester reports inaugurated in 1934 provide for a rating of the pupil by the teacher on each of the purposes of the course and on seven habits of work common to all courses. Five categories are provided for the rating, and a summary mark—A, B, C, D, or F (incomplete or conditioned)—is given. In addition, space is provided for a narrative report when it is advisable to supplement the rating sheet.

Narrative reports or letters to the home are furnished whenever a pupil does particularly outstanding work, or is having serious learning difficulties or problems of adjustment.

### *Cumulative Permanent Record*

In 1938 the present cumulative record form was placed in use for all pupils. The record is an adaptation of several record forms which were studied by the faculty. The local adaptation seemed best to meet the needs of the school. In addition, the cumulative folder is available in counseling with pupils or parents. The cumulative records provide personal data and the extracurriculum record on the outside of a folded Kardex card. The inside of the folded card provides space for the scholastic record and both tabular and graphic portrayal of test results. The back of the folded card is available for a record of emotional development when the faculty determines what is to be recorded about that kind of development.

### *The Curriculum*

It is the firm conviction of the faculty that general education at the secondary school level cannot be provided by a system of free electives. During the eight-year period of the Study about 75 per cent of the high school program has been required. Ap-

proximately 85 per cent of the program in the first two years of the college is required.

Before the present college program was launched in 1937, qualified seniors in the high school were allowed to take courses offered to college freshmen on the university campus. Forty-eight courses were taken in 1937-1938 by the last class before the "new" curriculum went into effect. As was expected, this number fell when the first class to leave through the "new" program was in the twelfth grade. This class took 21 courses on the campus.

### SOCIAL STUDIES IN GRADES VII TO XIII

#### *Development of the Program*

The social studies program in grades VII to XII of the Laboratory Schools has gone through a process of continuous development. During 1933-1937 the five-year program planned in 1931-1933 was in effect; simultaneously a joint committee of the high school and college faculties planned a revision of the curriculum for the new four-year college, which was to include grades XI through XIV. In 1937 new programs were instituted in the high school and in the four-year college, and by October, 1940, these programs were fully in effect through grades VII to X of the high school and grades XI to XIII of the four-year college.<sup>1</sup>

The general objective of the old program was "to contribute to the development in boys and girls of an understanding of the modern world in its social, economic, and political aspects, with due attention to the historical and geographical background."<sup>2</sup> The courses offered were as follows:<sup>3</sup>

<sup>1</sup> The program in effect from 1933 to 1937 will be referred to as the "old" program; that in effect since 1937 will be designated as the "new" program.

<sup>2</sup> Robert E. Keohane and Howard C. Hill, "The Social-Studies Curriculum in the University of Chicago Laboratory Schools," *Fourth Yearbook* (1934), The National Council for the Social Studies, p. 182.

<sup>3</sup> The article by Keohane and Hill describes in detail the old social studies program of the Laboratory Schools as it was in operation or planned in October, 1934; a more recent description and an evaluation of the program as it existed in 1936-1937 is contained in the mimeographed *Survey of the*

|                    |   |                   |  |
|--------------------|---|-------------------|--|
| <i>Grade VIII.</i> | United States History                       | <i>Grade XI.</i>  | Economic society<br>Early civilizations                    |
| <i>Grade IX.</i>   | Modern World I<br>Community life<br>English | <i>Grade XII.</i> | American political<br>institutions<br>Western civilization |
| <i>Grade X.</i>    | Modern World II                             |                   |  |

All of these courses were required of all students, though selected high school seniors were allowed to substitute a general survey course in the college (Humanities I or Social Science I) for one of the subjects normally taken in grade XII.

In units of a historical nature an effort was made to develop geographical knowledge and understandings. The social studies were, in reality, a central core with which was correlated the work in other subjects, especially that in literature, written and oral English, music, and the graphic arts. The Morrison unit plan of organization and teaching was followed, with modifications, in all of the social studies.

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*Social Studies in the University Laboratory Schools*, by C. H. Judd, H. A. Anderson, and Ida B. de Pencier, University of Chicago, 1937.

The content of these courses may be indicated by listing the units taught in each. *United States history*: the Growth of Industry; Winning the West; Building the Nation; the Coming of World Power. *Community life English*: How We Live Together; the Family and the Home; the School and Education; the Church and Religion; the Assimilation of Immigrants; Public Health and Sanitation; Protection of Life and Property; Urbanization and City Planning; the Care and Training of the Handicapped. *Modern World I*: Inventing Machinery; Science Transforming the World; Developing Democracy; Achieving National Unity. *Modern World II*: Westernizing the Orient; Extending Europe Overseas; War and Peace in the Modern World; Experimenting with Dictatorship. *Early civilizations*: Primitive Man; the Land and Civilization of Egypt; the People of the Fertile Crescent; the Development of Greek Civilization; the Development of Roman Civilization. *Economic society*: Economic Incentives; Development of Our Economic Order; the Production of Goods; the Distribution of Income; Savings; the Management of One's Income; Vocations. *Western civilization*: the Beginning of a New Order; Expansion and Consolidation of Medieval Europe; Medieval Society, 1100-1400; the Renaissance and Reformation; Europe, 1600-1789; World Expansion of Western Europe, 1450-1789. *American political institutions*: Why We Have Government; Development of Our Governmental System; the Consent of the Governed; How Governmental Policies Are Determined; How Our Governments Carry Out Policies; the United States in the Family of Nations; Financing Our Governments; What Citizenship Means in the Modern World.

*Social Studies in the High School*

With the change to the new program in 1937 a three-year and, in 1938, a four-year sequence in the social studies went into effect. In each of the courses considerable emphasis is placed upon contemporary problems. The approach in each is the present-day scene; the organization and development is historical; the concluding phases, which comprise a major portion of the work, present modern problems. Since 1939 the courses in this sequence have been modified and the subject content has been revised frequently.

The first two years of the new sequence of courses relate to "The American Scene," and the last two years to "The World Scene." The social studies sequence begins in the seventh grade with a course in United States history. The course may be characterized as a "narrative-significant-aspects" course. The first twelve weeks are devoted to a straightforward and connected story of our nation's past. Tappan's *The Little Book of Our Country* and Kelty's *The Story of the American People* are used by the pupils during this first part of the course. The pupils read these accounts, and supplementary accounts from the books in the classroom library that illuminate the narrative. This reading is followed by the study of a series of units which present significant aspects of American life: Home Life, Schools and Education, Churches and Religion, Amusements and Sports, Travel and Transportation, and Communication. In each of these units enrichment readings provide an opportunity for the study of contemporary problems.

The second-year course (grade VIII) continues the study of "The American Scene," with emphasis upon the problems of city life. At the beginning of the course a brief review is made of the narrative studied during the preceding year. Following this review the units Population and the Growth of Cities, the Story of Chicago, the Development of Interdependence, the Care and Training of the Handicapped, Protection of Life and Property, and Public Health and Sanitation are studied. Much of the material taught during the years 1933-1936 in the community life English course is used in this course. Historical material intro-



duces each unit, but chief emphasis is upon the present-day scene. The completion of this course ends the first half of the four-year social studies sequence, the part relating to "The American Scene."

The courses in Social Studies III and IV have been built upon the principles that contemporary problems may be appreciated best when they are viewed in their historical setting, that a knowledge of the past makes the present more meaningful, and that history should be taught so that a knowledge of the past may contribute to an understanding of the present.

The work in Social Studies III (grade IX) is separated into two major divisions. Approximately the first nine weeks of the course are devoted to the study of "The Historical Setting," the narrative of human development from earliest times down to the present. The purpose of this Stream of History is to enable the students to develop a sense of chronological relationships, and to secure the basic understandings necessary for the study of the four units or "Aspects of Living" which comprise the second part of the course. A mimeographed *Stream of History* prepared by teachers in the Department of Social Studies is used as the basis for this study. The pupils read the material and then consult supplementary references in order to gain a more comprehensive view of the most significant phases of the story.

The "Aspects of Living" studied during the second part of Social Studies III are Urban Life, Rural Life, Industrial Society, and Standards of Living. Each of these longitudinal units begins with the study of the theme at hand in early civilizations and continues the trend of the story throughout the various periods of world history. At the conclusion of each of the units a study of the present era is made, with emphasis upon problems of our complex social and economic order.

In the tenth year (Social Studies IV) additional significant "Aspects of Living" are introduced for study. As in the preceding course, the subject matter relates to "The World Scene." At the beginning of this course a review is made of the Stream of History taught at the beginning of the ninth year. Following this review a study is made of Political Institutions, Religion, Human Knowledge, International Rivalries, International Cooperation, and Social Amelioration.

As already indicated, an adaptation of the Morrison five-step procedure of teaching was followed during the years 1933-1936. Since 1937 this technique has been further modified. A great deal of attention has been given to the development of methods for effective group and panel discussions. New techniques for the preparation and presentation of pupil reports have been developed. In general, presentations are given by the teachers when new units are introduced, and in most units final pupil organizations are required. These two steps of the Morrisonian technique are considered essential in the teaching and learning cycle. Although continued emphasis is given to extensive reading, greater stress is placed upon intensive study. Thus assimilation periods in the high school are periods of active pupil participation. Extensive reading is used most frequently during the time that the Stream of History is taught in the seventh and ninth grades, and intensive study most frequently during the study of the units of the respective courses. The problem approach has been used whenever possible in the teaching procedure. During the entire period pupils have been expected to give floor talks in which they applied the understandings they have gained during their study. This is accomplished by having the pupils present new subject matter in their talks to illuminate the learning objectives.

During the past year (1940) the members of the Social Studies Department have developed techniques for the more efficient use of motion pictures, for the more intelligent use of source documents, for the greater participation of pupils in the planning of course organizations, and for the more extensive participation of pupils in the preparation of instructional materials. Less rigid course organizations have made this new type of activity possible.

*Correlation of Social Studies with Other Courses.* Considerable attention has been given to the correlation of English, music, fine arts, science, literature, and industrial arts with the social studies. Correlation in the University High School is accomplished, in general, by indirect methods rather than by a formal organization of integrated subject matter. The program of studies in the University High School does not attempt to merge all of the subjects into a fusion course. Rather, correlation is made wherever

it can be made naturally without interfering with the organization and teaching methods of the various subjects in other fields. The teachers of the respective courses confer individually and in group meetings and plan their courses so that the subject content of the various fields will be interrelated whenever this is possible. Attempts have been made in some instances to focus the subject matter of the other content fields upon the units offered in social studies. Thus, in a limited sense, the social studies program is the core of the curriculum.

*Values of the Social Studies Courses.* The courses in the four-year social studies sequence are designed to give the pupils an understanding of present-day society and institutions. A great deal of attention is given to the study of current events in the University High School, particularly in Social Studies I (grade VII) and Social Studies III (grade IX). Recent events in the respective Streams of History taught in those years become a definite part of the narrative—recent American events conclude the American Stream, and recent world events conclude the World Stream.

Members of the Department of Social Studies during the past eight years have been engaged in the preparation of enrichment materials relating to the courses taught. It is the belief of the administrative officers and of the teachers of the social studies that there is an urgent need for the enrichment of the curriculum, and that new material of instruction should be developed. The materials which are in use have been carefully tested in the social studies classes. Those which are found to meet the needs of pupils in acquiring a clearer understanding of social studies problems than is possible from the meager accounts contained in basic and collateral textbooks are prepared for publication. It is the purpose of the department to bring together a body of material not generally accessible for use as enriched, supplementary reading.<sup>4</sup>

<sup>4</sup> The following brochures have already been published: *Men and Oil, Struggle over Slavery, Amusements and Sports in American Life* (University of Chicago Press), and *The Disordered World Today* (Montzer Bush and Company). *Industrial Society* is in press and will be published during the coming school year. Following are the titles of units that are in preparation: *Houses and Home Life in America, Schools and Education, Urban Life, Rural Life, Stream of World History.*

*Social Studies in the First Three Years  
of the Four-Year College*

In October, 1937, the new program went into effect in grade XI, the first year of the four-year college; by 1939-1940 sequences in the social sciences and in humanities were in operation in the first three years of the four-year college. Most of the content which had been taught in grades XI and XII under the old program was retained, though a number of significant modifications were made. Continuous revision based upon careful evaluation of previous work has been a fundamental principle of curriculum development in the four-year college. In this work the faculty of the four-year college has been greatly aided by the experience of the general courses taught in the two-year college since 1931.

The primary objective of the social science sequence in the four-year college is to enable the students to attain the knowledge and understanding of political, economic, and social ideas, institutions, and problems which an intelligent citizen of the United States needs today. Stress is placed upon those phases of the historical background, particularly of the United States, which make contemporary ideas, institutions, and problems intelligible. Careful attention is given throughout the three years to the development of desirable abilities, skills, interests, and attitudes.

In the first year (Social Science A) American political institutions, past and present, are studied. The origin, development, and significance of representative democracy, political parties, constitutional government, and the federal system are considered. Emphasis is then placed upon contemporary aspects of party, electoral, policy-making, administrative, and judicial processes. Significant aspects of local government in the Chicago metropolitan region, civil liberties, and the citizen's relation to conflicting ideas and forms of government in the world today are studied.<sup>5</sup>

<sup>5</sup> The first year's work is organized into units similar to but not identical with those of the course in American political institutions in the old program. The units, in order of teaching, are as follows: Government in Modern America (introductory), How Our Nation Began, How Our Political System Has Developed Under the Constitution, Securing the Consent of the

The second year's work (Social Science B) begins with a historical approach to the study of contemporary economic institutions. The characteristics of medieval and present-day economic society are compared and contrasted, and the development of the economic society of the Western world is studied. Stress is then placed upon the nature and meaning of production, its costs and organization, the advantages of specialization, agencies of exchange, value, money, and the price system. Variations in wealth and income and some of the more important proposals for solving outstanding economic problems are studied. The year's work is concluded by the consideration of problems of governmental finance and of the social and individual management of resources.<sup>6</sup>

The sequence in the social sciences in the four-year college is concluded by a year's work in Social Science C in grade XIII. Emphasis is placed first upon population changes, social organization and problems, and social control. Problems of race and culture are given intensive treatment. International relations in all significant aspects are then studied and an attempt is made to tie together and unify the learning of the entire three-year sequence.

In the first two years, instruction is organized in small groups in which long-term assignments, supervised classwork, group discussions, and short talks by teachers and reports by students are the more significant aspects of the teaching procedure. In the third year, emphasis in class is divided between lectures and discussions, and a larger amount of outside reading is expected. The work of each year is concluded by a comprehensive examination, upon which final grades and credit are based.<sup>7</sup>

In addition to the sequence in the social sciences there is a

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Governed, How Governmental Policies Are Determined, How Our Governments Carry Out Policies, Local Government in Metropolitan Chicago, Citizenship in Our Democracy.

<sup>6</sup> The units of Social Science B are as follows: Why People Work, the Development of Our Economic System, the Production of Goods, the Exchange of Goods, the Distribution of Goods, the Share of Our Governments, Vocations, and Savings.

<sup>7</sup> The preceding four paragraphs are based upon the statement in *The Four-Year Junior College at the University of Chicago* (University of Chicago Press), pp. 12-13, but are here brought up to date.

sequence in humanities which includes a large amount of historical material—which is, in fact, organized about the theme of the development of the civilization of the Western world. The first two years of this sequence include most of the content formerly taught in the early civilizations and the Western civilization courses.<sup>8</sup>

## ENGLISH IN GRADES VII TO XIII

### *English in the High School*

The English Department of the University High School provides instruction in the four fundamental language arts: reading, writing, speaking, and listening. In his school and out-of-school life the pupil engages in conversation and group discussion; gives formal and informal talks; presides over meetings; takes notes; writes letters, reports, and longer papers; reads newspapers, magazines, and books; listens to radio programs and public addresses; views motion pictures; and so on through a wide variety of activities involving language. The English Department seeks to train pupils to perform these activities well. To this end it assumes a number of functions.

This is done in part through the courses in English themselves; in addition, a very definite attempt is made through cooperation with all teachers in the school to provide wholesome language experiences in all courses. In this respect the department works through the entire school.

Besides this, the department offers a sequence of organized units in the language arts designed to give the pupil the necessary technical equipment and standards of performance for successful communication. In addition, incidental and individualized instruction is given whenever it is most appropriate. The following list of units gives a skeleton outline of the course of study for grades VII through X:

#### *Seventh Grade*

1. Free Reading (2 weeks)
2. Manuscript Forms (1 week)

<sup>8</sup> For a discussion of the humanities course, see pp. 682–683.

3. Writing Titles (1 week)
4. Spelling: simple rules, formation of plurals, commonly mispronounced words, mastery of 500-word list and individual lists (2 weeks)
5. Engaging in Conversation (1 week)
6. Ballads and Short Narrative Poems (4 weeks)
7. Word Study: prefixes and suffixes, homonyms, other words often confused, gender of nouns, word compounds, word building (3 weeks)
8. Sentence Recognition (1 week)
9. Home and School in Literature (4 weeks)
10. Writing Conversation (1 week)
11. The Use of Capitals (1 week)
12. The Use of the Hyphen (1 week)
13. The Use of the Apostrophe (1 week)
14. Proofreading (1 week)
15. The Short Story (4 weeks)
16. Pioneer Life in American Literature (5 weeks)

### *Eighth Grade*

1. Motion Picture Appreciation (3 weeks)
2. Participating in Group Discussion (2 weeks)
3. Spelling: 500-word list and individual lists (1 week)
4. The Making of Americans (4 weeks)
5. Preparation and Delivery of Oral Reports (2 weeks)
6. Sentence Building (2 weeks)
7. The Dictionary (3 weeks)
8. How to Use Books (2 weeks)
9. How to Make Outlines and Organizations (1 week)
10. How to Build Paragraphs (2 weeks)
11. Longer Narrative Poems (4 weeks)
12. How to Listen (1 week)
13. The Radio (3 weeks)
14. Religious Prose and Poetry (3 weeks)
15. Writing Friendly Letters (2 weeks)

### *Ninth Grade*

1. How to Read the Newspaper (5 weeks)
2. Parliamentary Procedures (1 week)

3. Social Correspondence (2 weeks)
4. How to Use the Library (2 weeks)
5. Free Reading (2 weeks)
6. Essential Parts of the Simple Sentence (4 weeks)
7. Biography and Autobiography (5 weeks)
8. Preparation of Longer Papers (2 weeks)
9. The Effective Use of Words (2 weeks)
10. Modifiers in the Simple Sentence (4 weeks)
11. The Novel (5 weeks)

### *Tenth Grade*

1. A Study of Periodicals (5 weeks)
2. Our Language (4 weeks)
3. Myths That Live Today (3 weeks)
4. Formation of Compound and Complex Sentences (3 weeks)
5. Punctuation Within the Sentence (3 weeks)
6. Reading and Writing Essays (6 weeks)
7. Agreement in the Sentence (1 week)
8. Case Forms of Pronouns (3 weeks)
9. Lyric Poetry (5 weeks)

From the foregoing list of units it may be seen that instruction in composition and literature is not separated by semesters, nor are the units in composition and literature sharply separated. Furthermore, the technical units are closely integrated with the functional use of language. For example, the first unit in the seventh grade is Free Reading, in which an attempt is made to launch a program of guidance in free reading. In the course of the unit the pupils discuss their free reading, write reports on their reading preferences, and keep records of their reading. The units on Manuscript Form and Writing Titles are introduced at this point. Instruction in the rules and conventions of writing titles is most appropriately given when the pupil has a real need for writing many titles, as he does when he writes about his reading and keeps a record of his reading.

Another feature of the program is the presentation of literature through varied patterns of approach. The first pattern may be described as guidance in free reading. The pupil is encouraged



and assisted in carrying forward throughout the four years an individual program of reading adapted to his special interests, needs, and aptitudes. The pupil is also given extended reading experience in each of the major types. As a third pattern of approach, the pupil's reading is grouped around certain themes. And, as a fourth approach, the department offers through a series of literary recitals those forms of literature which depend upon the spoken word for the fullest appreciation. Finally, the department in cooperation with content teachers seeks to correlate the reading of literature with other subjects.

### *English in the Four-Year College*

As explained elsewhere in this report, a recent administrative reorganization of the University Laboratory Schools allocates grades VII through X to the high school and grades XI through XIV to the new four-year college. The English program in the four-year college consists, first, of a three-year sequence in reading, writing, and criticism required of all pupils. The course is designed to cultivate critical habits in reading, writing, and speaking. The assumption underlying the organization of the sequence is that there are specific reading problems peculiar to each type of discourse. To obtain critical ability in reading and writing, students are required to read with great care, under close supervision, examples of all of the major types of discourse which they normally encounter both in and out of school. General reading problems which one encounters in all kinds of reading are analyzed and students are taught habits of observation which will lead to the overcoming of these problems. Writing situations arise from the reading assignments and from work in other courses which the student is taking. Frequent reading tests are given to measure progress in critical ability. The work in literature is an integral part of a required three-year sequence in humanities. The course is planned and taught by a committee of teachers drawn from the fields of history, literature, music, and art. In the first year the study centers on ancient civilization; in the second year, the medieval world; in the third year, the modern world. The great classics of the Western world constitute the content of the literature aspect of the course. Instruction

seeks to emphasize: (1) their timeless qualities as contributions to thought and art, (2) the ways in which they reflect the culture of the past, and (3) their immediate significance to contemporary ways of thinking and living.

### *Development of the Program*

The present program of instruction in English in the University Laboratory Schools is the product of more than a quarter of a century of experimentation. While modifications and innovations are being introduced constantly, many of the essential features have been in operation for several years. The changes which have been made from time to time have resulted from experience and experimentation with various methods of teaching and organization of instructional materials. Our participation in the Eight-Year Study gave impetus to a number of changes which otherwise might have come more slowly. The Evaluation Staff has been particularly influential in directing our attention, in the first place, to the need for carefully determining and clearly stating the purposes or objectives to be obtained through English instruction and, in the second place, to the need for developing instruments for evaluating pupils' progress in the attainment of those objectives. Significant progress has been made in both areas.

## SCIENCE IN GRADES VII TO XII

### *Development of the Present Organization*

Science has occupied a prominent place in the program of studies of the Laboratory Schools from their beginning. The records of the schools show that as early as 1900, four years after the elementary school was started, science was listed as a subject of instruction in grades IV through X. The prominent position given to science at that time has continued to the present, except that in recent years the pupils in the Laboratory Schools have been introduced to planned science experiences each year of the course from the first year of the kindergarten through the last year of the college, or the fourteenth grade. The curriculum in science thus has had a long and continuous development.

*Science in the High School*

At the beginning of the Eight-Year Study a course in general science was required for all freshman pupils four periods each week. This course was replanned during the interval between 1933 and 1935 to include mathematics. Although mathematics and science were scheduled together, in reality the time was divided and the two subjects were taught separately, usually by different teachers. The following year a four-hour general science course was required of all freshmen. After 1936 general science was gradually introduced into the seventh and eighth grades, and by 1939 it was taught in the three lower grades of the high school years (VII, VIII, IX). The seventh and eighth grade classes meet twice each week; the ninth grade classes, three times each week.

Instead of botany and zoology the University High School has for many years had an elective course in biology for students who wanted an elementary course in biological science. This course has gradually been modified and reorganized to present in one year as much of the fundamental knowledge of biology as is practicable. In 1933 the course was a 5-period elective. It has now become a 3-period requirement.

Thus during the period from 1933-1939 the junior high school science courses changed from a required one-year general science course and an elective biology course to a required science sequence extending through grades VII, VIII, IX, and X.

In the biological units the teacher uses a wide variety of activities to develop the problems and principles of the course and to increase the knowledge and interest of the pupils in living things. Although each class studies a core of organized units, there is a daily emphasis on seeing, knowing, and thinking about plants and animals and relating their activities to the fundamental problems of life.

It is the belief of the teachers who have developed the science courses that the most effective work is done when the courses are organized into comprehensive teaching units, each one having as its objective the acquisition by the pupil of some fundamental understanding of his environment.

Although the work in general science and biology is not completely individualized, a great deal of attention is given to helping each pupil get as much as possible out of his study of science. The work in general science is definitely outlined, but its organization does not prevent pupils from following their own interests. Frequent, incidental problems arise which stimulate class discussion, experiments, or reading, and occasionally the showing of motion pictures.

*Correlation of Science with Other Courses.* Science in the University High School is taught separately rather than in an integrated course in the belief that this plan leads to a more usable understanding of scientific facts and laws. The teachers recognize, however, that science touches on all aspects of human life and thought. It is, therefore, not taught as an isolated subject. Science teachers insist on a reasonable degree of accuracy in form and English usage in written work. Spelling and other errors are habitually marked in science papers. The social implications of scientific phenomena and scientific inventions are emphasized, although their chief emphases and analyses are left for the social science classes. There is a small amount of correlation with shop courses, especially in the study of power devices. Whenever opportunity offers, the meanings of scientific terms derived from the Latin are pointed out for the benefit of the pupils who are studying Latin. When mathematical situations arise, the science teachers assume responsibility for teaching the application of processes learned in mathematics classes.

*Values of the Science Courses.* Through the study of science the teachers try:

1. To satisfy the pupils' curiosity about their natural surroundings, about their own bodily activities, and about plants and animals.
2. To provide a basis for understanding many modern social problems, at least to a higher degree than would otherwise be the case.
3. To provide an opportunity for careful inquiry into natural phenomena so that reading, conversation, and observation become more meaningful.
4. To provide activities through which pupils may grow in

their ability to analyze situations and relations and to give clear accounts of what they understand.

5. To give much information that will be directly useful in the personal enterprises and health problems of the pupils.
6. To arouse in many pupils vocational and avocational interests that will continue after the completion of the courses.

### *Science in the First Two Years of the Four-Year College*

Until 1933-1934 seven-hour elective courses were offered in physics, chemistry, and advanced biology. Beginning at that time, a fused physics-chemistry course called "Foundations of Physical Science" was taught for four years and considered a prerequisite to the chemistry elective.

The science courses offered in the first two years of the college are: (1) a two-year general course in physical science, which includes content chiefly from astronomy, chemistry, geology, and physics; (2) a two-year general course in biological science, which includes much of the content of a freshman college biology course with a strong emphasis on human physiology and psychology in the second year. Students take one or the other of these sequences in grades XI and XII and later study the alternate field of science in a one-year course.

The legislative action which set up the present four-year college curriculum allotted six periods per week to science in each of the two lower years. Two periods of the six are presumably to be spent in "laboratory work," with a correspondingly reduced demand on the students for outside preparation. The instructors employ whatever methods of instruction seem to them most appropriate for the material being studied at the time. Lectures, discussion, quizzes, demonstrations, laboratory problems, excursions, and supervised study are used to attain the objectives of the courses.

Through the activities of these science courses the instructors try to have each student acquire a knowledge of the field that is an acceptable minimum for an educated person. They believe that this acceptable minimum consists of: a rather clear idea of the kinds of problems scientists are trying to solve, together with

an understanding of the methods of thought and investigation scientists employ; the possession of at least a sketchy picture of the natural world as revealed by scientific study; some insight into the real complexity that is discovered in nature when it is investigated carefully; knowledge of and ability to use some of the laws and principles worked out by science; a reasonable understanding of the everyday applications of scientific knowledge and of the social significance of these applications; an increased vocabulary appropriate to the field but not loaded with technical terms that are dimly understood and little used. The instructors are very much concerned with the problem of managing the presentation and the procedures of the courses in such a way that the students will get much practice in straight thinking while they are acquiring the kinds of knowledge indicated above. They are also conscious of the importance of having the students complete their study with a feeling of the reality of the things they have studied and a continuing interest in the natural world, in the discoveries of scientists, and in the applications of these discoveries.

#### OTHER DEPARTMENTS

Space limitations prevent the inclusion of similar reports on the work of other departments; these may be obtained in mimeographed form by writing to the school. It was felt that a full account of the work of a few departments would be of more value than a general account of all.

The reports which have been included indicate that the chief contribution of the school to the problem of school and college relations has been its experimentation with a "college" program covering grades XI through XIV. While the problems involved in the reorganization of courses during the Eight-Year Study have not yet been solved, enough has been done to give this form of organization a serious claim on the attention of city school systems, many of which are now offering free public education through grade XIV. With the coming of the junior college, and with the development of broad survey courses in the usual freshman and sophomore years in college, it has become more and

more obvious that there is wasteful duplication of the work of the last two years in high school. The development of students during these four years is also strikingly similar. It is time that at least one experimental school explored the possibilities of treating these four years as a unit. As this program evolves, it may lead to a new division of functions of school and college, and put the whole problem of school and college relations on a different basis.





and increased administrative complexities. If students were to emerge with their experiences unified in terms of their potentialities, their aspirations, and the requirements of modern life, the need for a halt in the trend of diversification had become apparent and urgent.

### *The Core Curriculum and Integration*

The core program was a move toward integration—toward a better general education at the high school level. It was promoted by a faculty experienced in cooperative endeavor and accustomed to change. Pertinent information from investigations of causes of absence, of successes and failures of graduates, of use of time by students, of sociological backgrounds, of participation and leadership in social activities, of students' health, of special problems of entering students, was at hand and the three-year Adolescent Study, financed from a grant of funds by the General Education Board, was just beginning. Thus, although the first steps in establishing this program were necessarily hesitant, there had been extensive indirect preparation.

The staff early recognized that the kind of integration desired was not to be achieved by merely bringing together the content of different subjects: it would require a composite of whatever content and procedures and activities would meet the developmental needs of boys and girls and prepare them for those life activities which the majority anticipate. It was apparent that this content should develop out of a study of the students concerned and out of the general requirements for living in the culture of this area and that it should be ordered psychologically in terms of individual readiness and ability to learn. Likewise, continuity was expected to arise, not out of the mere logical organization of subject matter, but out of the relationship of experience to experience in the progressive development of the individual maturing in this school and this community and in accordance with the accepted philosophy of social organization.

### *The Purpose of the Core Curriculum*

Core courses were expected, therefore, to contribute to the integrated growth of the individual. They were to be based on

the belief that he develops most satisfactorily when at the same time he contributes to and serves his social group—whether this group be comprised of those of his own age or of adults; whether this group be in the school or in the home or in the community. They not only were to be directed toward outcomes in behavior, in knowledge, in attitudes, and in skills that improve the immediate personal well-being and efficiency of the student, but also were to be concerned with those common aspects of human experience that would affect the majority later. The attention of the teacher was to center in the personal development of the student as a member of a social group, rather than merely in the mastery of enough subject content to reach the next rung on the educational ladder—in the events that would affect him in class, in school, in the home, and in the community. Whatever was to be taught would derive its significance from its value to the student in the physical, personal, and social aspects of living.

### *The Students Served by the Core Curriculum*

In the light of this point of view the characteristics of the students whom this core program was to serve became increasingly significant. What was known about them? In building, a general education program that would meet the needs of the majority, what assumptions could be safely made regarding them? From data available it was apparent that the majority (1) came from the East Bay region, (2) were citizens of the United States, (3) lived in homes with both parents, (4) had parents who actively supported public education, (5) would graduate from University High School, (6) were members of families and potential homemakers, (7) were accustomed to a better than average standard of living, (8) were between 14 and 18 years old, (9) were within normal limits of learning capacity, (10) had and would continue to have a considerable amount of leisure, (11) had and would continue to have normal relationships with members of their own and of the opposite sex, (12) had better than average health, (13) had and would continue to have more than ordinary opportunities for social and recreational endeavors, (14) had exceptional opportunities to improve and develop through the many services which the school afforded, (15) had

opportunities to share in the cooperative life of the school, (16) expected to earn a living at gainful employment, and (17) anticipated further training after high school—vocational school, 30 per cent; University of California, 28 per cent; junior colleges and other colleges, 30 per cent.

### *The Objectives of the Core Curriculum*

These and other characteristics equally or more significant, though perhaps not so readily apparent, were important in establishing a base for the projection of objectives in the core or general education program. It was reasonable to expect that the student, already on the threshold of maturity, should begin now to assume an adult role in directing his own affairs, in anticipation of the future. Accordingly, with the help of his teachers, his counselors, and his parents, he would be encouraged to analyze his resources and his purposes to the end that he might gain a realistic view of himself—his physical capacities, his mental abilities, his vocational aptitudes, his social attributes, and his aesthetic and artistic potentialities, so that he might direct his energies toward worth-while and attainable goals both now and after high school.

This appraisal, which would be a continuous and developing process throughout the core curriculum, would be the chief means through which the student integrated his diversified experiences at school, at home, and in the community. It would involve many aspects of guidance; it would have interrelationship with the social program; it would necessarily include many activities that were ordinarily carried on through home rooms. Its essential purpose, however, would be to acquaint the student with the significance to him of the knowledge gained, with the desirability of the skills acquired, and with the relationship of his attitudes and his behavior to the attainment of personal and social well-being.

The core program would promote the growth of the student in those attitudes and behaviors that were concerned with: (1) his own development; (2) his citizenship as a student in University High School and in a democratic society; (3) his role as a member of a family, both now and in the future; (4) his rights and

responsibilities in earning and spending money; (5) his rights and responsibilities as an employee or employer; (6) his part and place in social organizations, in carrying on their functions and in understanding and promoting their values; (7) his need for making and maintaining acquaintances and friends.

The core program would further the student's skills in accordance with his goals, resources, and capacities in reading, writing, and use of quantitative relationships. It would promote mastery of the techniques involved in self-directed study; e.g., use of libraries, books, magazines, and newspapers. It would encourage facility of expression in speech, in writing, and in appropriate graphic forms. It would stress the procedures in critical thinking, such as those involved in applying principles, interpreting data, and establishing proof. It would provide for the development of the social skills essential for participation in the various aspects of cooperative living. It would enable the student to engage in and enjoy leisure activities.

The core program would contribute to the student's knowledge—knowledge not for its own sake, but for its personal and social significance to the student in the functional aspects of living: knowledge that would concern him as a human organism, as a member of a family, as a citizen in the school and in the community, as a participant in the economic order, as a student preparing for further education.

### THE CORE CURRICULUM

#### *Tenth Grade*

The tenth grade core program, entitled "The Student in School, in the Home, and in the Community," is composed of two units:

1. Personal Management (low X).
2. Social Living (high X).

Segregation is according to reading ability in low X Personal Management. In high X Social Living, students are first grouped into two sections: those who have studied biology in low X and those who have not studied biology in low X. Thereafter those who have not had biology are regrouped in accordance with their reading ability.

*Outcomes*

1. Orienting student to the culture of a new school.
2. Appraising status, interests, and abilities.
3. Planning next step in relation to goals and resources.
4. Developing personal skills.
5. Exploring occupations and leisure activities.
6. Developing social relationships and social techniques in and outside of school.
7. Understanding the family as a social institution; its provisions for security, safety, and protection; its basis in heredity and environment; its place in a democratic society.
8. Understanding some of the functions of the community in promoting and protecting the teen age and in extending family responsibilities, such as public health service and education.

*Procedures*

1. Excursions to dairies, filtration plants, orphanages, social agencies, sanitariums, industrial plants.
2. Laboratory work on circulation, bacteria, sanitation, and heredity.
3. Speakers from agencies such as Red Cross, Community Chest, public health service.
4. Use of sound films: filtration, first aid, famous scientists.
5. Reading from references: magazines, pamphlets, bulletins, stories, and biographies.
6. Leisure reading for increase in range in types and degree of maturity.
7. Use of diagnostic tests to survey information, skills, achievement, interests, opinions, and prejudices.
8. Use of evaluation instruments for determining status and basis for planning: Interest Index, Voluntary Reading, Interpretation of Data, Application of Principles, Nature of Proof.

*Outcomes*

9. Studying controls set up by the human body, by the home, and by the community against communicable diseases.

*Procedures*

9. Experiences in writing, speaking, and use of essentials of English mechanics and fundamentals.

*Eleventh Grade*

"The Student in the Community, the Nation, and the World" is the subject of the eleventh-year core curriculum, and is divided into units on:

1. The History of the Evolving Democracy of the United States (low XI).

2. Problems of Democracy—Political, Social, and Economic (high XI).

Segregation is made according to reading ability, educational goal, and achievement.

*Outcomes*

1. Promoting individual interests and abilities.
2. Appraising present status of a citizen in a national and world culture with emphasis upon attitudes, beliefs, behavior, and ability to think critically on public problems.
3. Exploring the steps in the evolving democracy of the United States.

*Procedures*

1. Developing skills essential to panel discussions, debates, forums, taking notes, making outlines, organizing topical material.
2. Creation and presentation of graphic illustrations by students: graphs, diagrams, charts, sketches, maps, cartoons, carvings.
3. Developing study skills in using and evaluating newspapers, magazines, library sources, moving pictures, and radio programs.

*Outcomes**Procedures*

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| <ol style="list-style-type: none"> <li>4. Studying the problems of individual enterprise in relation to human welfare.</li> <li>5. Recognizing conflicts in a national democracy that arise from antisocial individualism and that necessitate social restraint.</li> <li>6. Studying intensively specific current problems such as housing, the migratory worker, public health and medicine, labor relations, and public education for democracy.</li> </ol> | <ol style="list-style-type: none"> <li>4. Critical thinking on controversial issues, with emphasis upon analysis of propaganda and its effects.</li> <li>5. Use of evaluation instruments to show changes in interests, attitudes, and critical thinking, such as Application of Principles in Social Problems, Scale of Beliefs, Social Concepts, Interpretation of Data, and Controversial Writing.</li> </ol> |
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*Twelfth Grade*

In the twelfth grade core, "The Student Now and After High School," the units are:

1. English, Psychology, Consumer Education, Home Problems (low XII).
2. English, Senior Problems (high XII).

Students are grouped primarily by subjects organized to appeal to different interests and to prepare for different goals. Since by this time students know what the next step after high school will be, this scheme also provides indirectly for an approximate ability grouping. They may elect more than one core subject in this year.

*Outcomes**Procedures*

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|---|--|
| <ol style="list-style-type: none"> <li>1. Appraising personal development, status, and fitness for the next step and for adult life.</li> </ol> | <ol style="list-style-type: none"> <li>1. Reading for comprehension, appreciation, and enjoyment.</li> </ol> |
|---|--|

*Outcomes**Procedures*

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|--|---|
| <ol style="list-style-type: none"><li>2. Orienting to adult institutions and culture in the community.</li><li>3. Acquiring functional information and skills, with reference to:<ol style="list-style-type: none"><li>a. Finding employment.</li><li>b. Homemaking.</li><li>c. Enjoying leisure.</li><li>d. Earning and spending money.</li><li>e. Appreciating the arts, especially literature.</li><li>f. Expressing thought clearly and logically.</li></ol></li></ol> | <ol style="list-style-type: none"><li>2. Frequent writing for correctness and clearness.</li><li>3. Speakers, forums, panels, films such as "How to Get a Job," and radio programs.</li><li>4. Excursions to various industries, special schools, colleges, stores, and art galleries.</li><li>5. Developing skills in library research, précis writing, preparation of term papers, taking tests.</li><li>6. Evaluation of changes through the use of instruments such as Interpretation of Data, Interests Index, Voluntary Reading, Application of Principles.</li></ol> |
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*Sectioning in the Core*

Adequate and appropriate bases for sectioning are a recurring problem in all core subjects. Obviously classification should be made in terms of the outcomes anticipated. The great variety in method of sectioning in various areas of the core is evidence of the recognition of this principle. Difficulties arise, however, when more than one outcome is attempted simultaneously and when the best sectioning to attain one result is ineffective for attaining another. Reading ability, for example, provides a certain degree of homogeneity when information is to be gained from books, but none at all in activities that involve social experience and social maturity, since it would be ridiculous to group tenth grade students for social occasions according to reading comprehension. An overgrown tenth grade girl would have no desire to pair off with an undersized boy merely be-



cause he knew how to read. For this reason an ungraded and parallel social program has advantages over one that marks time grade by grade with the core. Thus the artificial barriers such as grade placement and other traditional schemes for grouping students do not hinder normal social fellowship.

Grouping in physical education more nearly approximates the informal segregations that take place in the social program. For boys, in every grade, an age, height, weight index provides the first rough classification, while skill, knowledge of the game, status of health, and seasonal changes and interests all are factors in the extent and kind of activity in which the boy engages. Girls in the tenth grade are grouped together for a program of team games and folk, recreational, and social dancing. In the eleventh and twelfth grades they select their activities from a program of team games, individual sports, posture work, leadership training, and modern dancing.

It is the intent of the whole social, core, and guidance program that as students mature they shall effect a reconciliation among their goals, abilities, and resources to the end that there will be fewer artificial segregations and more natural groupings of like-minded persons pursuing common purposes. This intent is apparent in the twelfth grade, where students segregate themselves by choosing from a group of core subjects in accordance with their present needs and their plans for the next step after high school. Senior Problems is a reorientation toward occupational and family life in the community. It is intended for those whose formal schooling will end with the twelfth grade—the H section for girls who are already planning for marriage or home life, the C section for boys who are impatiently awaiting the day when they shall be eligible for full-time employment. Twelfth-grade English, on the other hand, is largely intended for those who anticipate further schooling in the university, or in the junior college, or who desire additional training in this subject although they do not plan to continue their education beyond the twelfth grade. The A, the B, and the C sections, respectively, provide appropriate instruction for each group.

It is important to state here emphatically that University High School is opposed to any fixed scheme of classification that

would hinder the all-round development of the individual, or that would withhold approbation due for superiority in one kind of achievement merely because of poor performance in another. Segregation on the basis of the relationship that exists between the outcomes desired and the ability and purposes of the individual with respect to outcomes insures a changing basis for classification from grade to grade and from class to class. A student pursuing a schedule of social studies, orchestra, physical education, chemistry, study, and world literature might experience a different scheme for grouping in each hour of his school day. Schools can classify content, procedures, materials, and activities in accordance with some one unifying principle, but they never yet have been able to classify persons satisfactorily on any permanent single basis. It is unfortunate that misplaced faith in the so-called homogeneous grouping of students has tended to foster an intellectual caste system and that unwholesome social connotations inhere in terminology such as "fast" and "slow" and "A" and "Z" when applied to groups of students. Only through a continuous program of appraisal within the core and through appropriate procedures in individual guidance, instruction, and administration can these unsocial concomitants be eliminated.

### *Proportion of School Day Devoted to the Core*

The proportion of the student's daily schedule that should be devoted to a basic required program is a matter of recurring controversy. At the present time the student at University High School spends one-third of his day in the required core. If he is preparing for university entrance, another third of his school day must be devoted to preparatory subjects. However, even so, he still has one-third of his schooltime left for his individual pursuits. Nevertheless, this limited time available for individual interests usually lessens the number of specialized activities which many students can explore or in which they can become proficient while in high school. To meet this problem some would argue that many of the outcomes that formerly were the exclusive function of specialized subjects should now be cared for in the general curriculum. All would then have an opportunity to explore and to develop some proficiency in various expressional

and study skills as a part of the procedures and activities of the core, so that those with hitherto undiscovered interests and talents would thus be guided into those specialized fields that would best meet their needs or would provide appropriate exercise of special abilities. Use of time seems to be the determining factor in any attempt to direct the basic program along these lines. When the student's special needs and interests are known, they can be cared for either by extending the time devoted to the core or by diverting to this purpose more of the time already available in the core or by extending the number of periods in the school day which the student can devote to these needs and interests.

At the moment University High School does not give wholehearted allegiance to any of these possibilities. Early in the development of the core curriculum an attempt was made to block out three consecutive hours of the low-tenth grade student's day for core subjects—one hour for physical education, one for Personal Management, and one for Social Living. The experiment was considered a failure at the time because parents and students objected to the loss of a study period and to the loss of periods for special interests, such as English and other of the fine and useful arts. While ideas as to what a general required program should be and as to how it should be carried on were rather nebulous when this early experiment was attempted, the results have fixed the trend of the core program ever since. Not until the fall of 1939 was the time for a core subject extended beyond the limits of one class hour. At present, one section of Senior Problems runs through two consecutive afternoon periods. Since this is a course for students who are completing their formal schooling in high school, the advantages accruing from the extended opportunity to explore community resources during the school day are being recognized and may eventually win universal approval.

### *Competition for Time in the Core*

Some time ago when some members of the administrative staff and some of the senior core teachers suggested that a similar

extension of time should be made for the core students who were expecting to continue their formal education after high school, counselors rejected the idea on the basis that such a two-hour period would be impracticable in arranging students' programs, that two hours was too long a time for senior students to spend in one class with one teacher, that there was no more reason to give more time to senior English than to senior foreign language or any other academic subject. While the soundness of any one of these reasons may be questioned, the last is particularly significant because it suggests a medley of problems and conflicts that are bound up with the use of available time in the hour allotted to the core.

As students advance from the tenth to the twelfth grade, emphasis on content outcomes increases for those in the upper ability levels. This emphasis is not entirely due to university requirements. Intelligent students and parents insist upon a content that extends intellectual possibilities. Teachers in core subjects, too, feel themselves accountable to the school and to the student for the attainment of definite content outcomes. Students who enroll in the A sections of senior English, for example, expect to be able to pass the Subject A entrance examination in English at the University of California. The yearly percentages of those passing and failing this test are partially a measure of the instruction in these courses. These teachers feel impelled to conform to this external standard and are, therefore, jealous of the classtime (average about one-third) that must be given to activities related to guidance, administration, and the social program. They feel that they are expected to achieve the same content outcomes in two-thirds of the time that formerly was devoted to them in the special subjects, and that, to care for home room functions, to promote the social program, and to give guidance instruction, additional time should be made available. These same compulsions affect the attitudes of all core teachers to some extent. No one desires this additional time sufficiently, however, to advocate lengthening the school day, a fact which suggests that the problem may be quite as much one of adjusting values as of adjusting classtime.

*Inservice Training of Teachers in the Core Curriculum*

As one studies the summary of the aims, procedures, and outcomes of this basic program, he senses that additional inservice training for the highly specialized subject teacher would be necessary. It is, therefore, significant that an inservice training program was already well advanced when the core curriculum was introduced. Teachers were experienced in curriculum development both in University High School and in the Oakland Public Schools. They had been encouraged to study their own teaching problems in a truly professional way and to assist in the research program which the school sponsored. Many during their tenure had served in the guidance and social program; many had had supervisory responsibilities in the training of student teachers; many were deeply rooted in the life and activities of the community. Thus, much of the preparation which teachers need for success in a general education program had already been given.

It is notable that fully a third of the faculty volunteered to help organize and to teach in the first experimental core course. From this large number the principal had no difficulty in choosing a group with broad general training whose total experience encompassed guidance, social activities, life science, English, physical education, and community relationships. By detaching this initial group from their accustomed departments and permitting them to work directly with the administration under their own leadership, the problem of how much of the core should be science or English or some other specialized content was adroitly avoided, and these teachers, unhampered by restraining traditions, were free to adapt methods and content in accordance with the apparent needs and interests of the entering low X class.

Since every teacher recognized the experimental aspects of the program and his own need for the help and counsel of his associates, meetings to share methods, to compare results, to plan content, to organize activities, and to evaluate progress became an integral part of core teaching. In tenth grade Personal Management, where traditional content and procedures were

least appropriate, these meetings were frequent. In other more specialized areas, such as in tenth grade Social Living B and in Senior English A, there was less apparent need for continuous conferences, once the scope of these courses had been determined.

As each core subject was added to the curriculum after the initial low X Personal Management, other members of the faculty were assigned as core teachers. Those who already had taught in the core were reassigned as advantageously as possible to assist those newly inducted into this service. Thus, in every group that organized a new core subject, there was always a nucleus who understood the problems involved. Helpful as this was to the beginners, it did not ease the strain on those who had already been teaching in the core—in fact, it tended to keep them at wits' end trying to master new content, new methods, new concepts of child development—nor did it always contribute to the improvement of instruction in core subjects that were already under way. It did, however, bring the majority of the faculty quickly into direct relationship with curriculum reorganization and it did provide the inservice training for that reorganization. Today fully three-fourths of the faculty have taught in the core curriculum.

### *Do Core Courses Increase Teacher Load?*

Ordinarily teachers have found work in the core more strenuous than that in the special subjects. Personal Management has been especially time-consuming. Few teachers would choose to spend a full day with classes in this subject. All core teaching involves an extra burden of home room detail, of scheduling and of management, and of time devoted to meetings with other core teachers, with counselors, and with administrators. While no one has ever made a careful analysis of the energy output essential to successful work in the core as compared with that in the special subjects, such an investigation is urgently needed. Present indications are that the apparent increase in complexities of core teaching is in some way related to the attempt to telescope too many diverse activities into a single class hour. Doubling the class time and halving the number of pupils as is

now done in one class in Senior Problems goes far toward easing the tensions of the teacher and of the class and gives promise of more fruitful results where complex procedures involving excursions, outside speakers, and community relationships are essential.

### *Integrative Effects of the Core*<sup>2</sup>

Regardless, however, of his previous teaching experience, every core teacher found himself drawn into increasingly direct relationships with individual guidance, with social activities, with health service, with community resources, with the total life of the student and the total functions of the school. Guidance instruction gradually was shared by counselors and core teachers, as was likewise the accumulation of identifying data on individual students. An evening meeting each semester of the parents of low X students, subject teachers, core teachers, counselors, and administrators became an accustomed practice. Teachers of Senior English and Senior Problems began to utilize new content and new activities in recognition of their responsibility for preparing graduates more definitely for the next step after high school, whether it be university, college, trade school, or immediate employment.

### *Cooperating with Student Government and Student Activities*

Every core teacher now has responsibilities in assisting the administration and in cooperating with the student government. More and more frequently core classes discuss problems that concern the community, the school, and the student body. The national census, hazards in crossing the boulevard in front of the school, what to do about the increasing number of changes in students' schedules, how to control the crowds at the football games, proposed amendments to the student body constitution—all illustrate the varied subjects which come to the attention of core classes. Sometimes topics are suggested by student leaders, sometimes by teachers and counselors, sometimes

<sup>2</sup> Robert E. Brownlee, "Teaching in the Core Curriculum," *University High School Journal*, Vol. XV (1936), No. 2, pp. 144 ff.

by members of the administrative staff. Occasionally they arise spontaneously from interest aroused in some problem by the editorial writers of the daily student newspaper or by other discussion groups.

*Cooperative Activities of the Core  
and the Social Program*

Recently at the evening "Who's Who" dinner, student leaders discussed the topic of national defense. They had invited a member of the faculty to lead the discussion. He suggested to them that the chief problem of students and faculty at University High School during the national emergency was to make sure that traditional and accustomed procedures were such as to insure that every student was experiencing the ways of a democracy. He urged that they re-examine practices in terms of the school's motto: "The progress of all through all under the leadership of the wisest and the best." The student body president gave every person present a long list of statements, such as the following, which he considered pertinent to the problems.

*Democracy in School Life*

Pupils who receive high marks should be given special awards.

If marks were done away with, there would no longer be anything worth while to strive for in school.

A pupil's worth should not be judged entirely on the basis of marks.

It is undesirable to give awards and honors unless all students receive recognition for their special abilities.

A pupil from another school should not wear a sweater with the initial of that school.

Students from other schools should not be invited to school dances.

It shows good school loyalty to "boo" the opposing team in an athletic contest.

If a pupil disagrees with a school regulation he should not be expected to observe it.

A pupil should not be asked to cooperate with a class project if he doesn't like the way it is handled.

People need rules and regulations to make them behave.

If a majority of a class votes to carry out a plan of action, those who voted against the plan should realize that they were wrong.



The minority opinion should not count, as it represents the few.  
All school offices should be filled by a vote of the student body.

The discussion began at once. Seemingly every student present desired to be heard. When the time came for dancing to begin, a large group insisted on continuing the discussion in another room. An hour later, when the buildings were closed, the discussion continued on the sidewalk. Evidently there were many ways in which University High School was not as democratic as it might be. There were minority groups that did not participate. There were social cliques that prized their own exclusiveness more than the general good. "Why," someone asked, "were there no colored students at this 'Who's Who' dinner? Why did one-third of the student body not buy student body cards? Why was a student body card required for voting in school elections? Why were there special assemblies for holders of student body cards?"

On the following day the discussion was continued in many core classes. The *Daily U-N-L*, in cooperation with the Student Council, has since carried on a campaign for a constitutional amendment that will extend voting privileges to all students who register. Before the election takes place, the proposed amendment will be discussed in all core classes.

### *Student Opinion Developed in the Core Aids Administrative Decisions*

Occasionally problems such as the following are presented to students throughout the basic curriculum:

Seventy-five per cent or more of students in University High School eat their lunches at school—a larger percentage than at any other high school in the city, due probably to our scattered population. A great many of these students eat directly across the street from school in or in front of the food shops at the corner of Grove and Arlington streets. The crowd there is so large that it often overflows from the sidewalk onto the street. Students are sometimes careless in walking back and forth from school to this corner and this carelessness plus occasional deliberate action often annoys motorists by causing them to stop. The situation is more than annoying—it has a very real danger for students of the school. So far no one has been hurt, but there were two com-

plaints last week from the Northern Police Station. Occasionally police cars cruise around the school during noontime, although our request for a police officer on duty at noon has not been agreed to. Some of the students have been decidedly noncooperative with the police officers who have tried to help out this situation.

In view of these facts, the student and faculty administration of the school should decide on one of the following actions:

1. Renew the efforts to have a police officer on duty during noon hour.
2. Have the Vigilance Committee put more emphasis on this situation.
3. Close the gates and doors and confine all students to the grounds at noon save those who have a pass to go home to lunch.
4. Form a special committee which would have this as its particular problem.
5. Put on an educational campaign which would help protect not only the students but also the reputation of the school.
6. Do nothing.
7. Form a committee of men teachers to police this area.
8. Institute a unit of the Junior Traffic Reserve to control movements of students on Grove Street.

Discussion of this kind of problem serves a number of purposes. It forces students to think about an actual situation and to consider the various possibilities. While usually no formal vote is recorded, they are thus prepared for whatever course of action must be taken. In this particular case, reactions were reported informally to the vice-principal by teachers and by students and, in accordance with the general consensus, a branch of the Junior Traffic Reserve was established to care for traffic conditions at the school.

### *Guidance Instruction in the Core*

In addition to those activities and procedures that spring from relationships with the administrative and social programs, every core teacher has responsibilities for those aspects of guidance instruction that are concerned with program planning. The extent of this instruction varies in different grades. In low X Personal Management almost the whole semester is devoted to guidance and orientation and appraisal of goals, resources, and

abilities. As a part of this work, students are tested extensively and are given ample opportunity to analyze and interpret results in respect to needs and goals in conference with core teachers and counselors. These tests cover basic skills, attitudes, interests, and social behavior, and are followed by instruction and activities related to the needs and interests discovered. This course culminates in a tentative three-year program planned by the student on the basis of his knowledge of himself, his goals, his resources, and of what University High School offers for his development in curriculum, social program, and guidance. Many of the records accumulated in Personal Management go into the central file for use by counselors and teachers.

Except in the high XII semester, guidance instruction requires less time in core classes that follow Personal Management. Usually it takes only one or two class periods at the time semester schedules are being made out. Formerly this instruction was all given by the counselors, who arranged to take over the classes for this purpose. Now, however, core teachers can give most of it, with counselors assisting and supplementing as needed. In the high XII semester, guidance instruction again becomes heavy. Here the student makes a reappraisal of many of the factors previously considered in Personal Management, which now again concern him in immediate preparation for his next step after high school. The activities of this senior core are selected and motivated on the basis of this reappraisal. The segregation of students during this semester into different core subjects in accordance with their special needs and immediate goals facilitates both guidance and instruction.

#### *Content and Procedures Result from Pupil-Teacher Planning*

A teacher in the high-twelfth grade core meets a new group of students in English B for the first time. He knows that they enrolled in this class because they expected to enter a junior college rather than go directly into the university. Most of them made this choice because they had not yet fulfilled university entrance requirements. A first look at the class helps him to understand why this should be so. He sees evidences of diverse

racial backgrounds, social immaturity, tensions. He is immediately aware that all colored and Oriental students have grouped themselves together and that all the boys sit on one side of the room and all the girls on the other. On the first day he asks them to fill out a questionnaire covering their previous school experience, their social activities, their plans, their present and past employment, their needs and interests with respect to the course. The teacher summarizes their answers, and on the second day the class and the teacher begin to plan content and activities on the basis of what this summary shows.

How to study systematically is a familiar felt need of a group of this kind and the classwork usually begins with some aspect of this theme. Reading for comprehension, paragraph structure, reviewing for tests, note taking, the logical organization of thought, mechanics, use of time, are all a part of the process which the students think they should master.

In the beginning the class works together as a group, usually on the same assignment, with the teacher directing every aspect of the program and with students working on a daily assignment basis. But as work proceeds the class is broken down into groups comprised of both boys and girls and without regard to racial background. In the latter part of the semester, these groups carry on long-time assignments in which they have wide responsibility for selecting their own content, for determining their own activities, and for evaluating their own outcomes. It is the plan of the teacher that the work shall move from mere drill on study skills to the use of these skills in the achievement of more complex goals; from an organization in which the teacher tells students what to do to one in which students tell the teacher what they plan to do; from individual work for individual purposes to individual work for group purposes. In a single class hour one group may be studying in the library; one may be in the hall outside the classroom, practicing for a group report; one may be reading from the text; one may be writing up a report given before the class on the preceding day.

The teacher's responsibility becomes one of directing systematically the complex activities involved and in giving direct help whenever it is needed. Students maintain a class file of work

completed, and from time to time each student goes over his file and evaluates his progress. In the process of this evaluation he becomes aware of incomplete work and of the marks and scores which the teacher and, on some occasions, his classmates have given. If at any time he finds material in this file which he considers unsatisfactory, he may remove it and do it over. The teacher, in his attitude toward these students and toward the kind of procedures in which they engage, is aware that they need most to discover their role as adults and to fulfill this role in their attitudes toward themselves, toward their fellows, and toward their achievement in the course. Every semester, however, he plans the work anew with the assistance of the class. The content of the course is much the same from semester to semester, but activities vary with the needs and interests of each group.

#### *Content in Relation to Social Needs of Adolescents*

A typical procedure which illustrates well the close relationship that may exist between content and the current needs of boys and girls is that used in teaching a unit on family relations in high X Social Living. The teacher here recognized that at this period of development the adolescent is trying to establish himself as an independent personality; while economically still dependent, he wants to be free to choose his own friends, to go and come as he pleases, to spend money as he sees fit, and to use the family car for his own purposes. Father and mother are not so wise as they once seemed, and brothers and sisters do not fit into his scheme of things. Fretted and badgered and frustrated by the adult world in which he finds himself, the student needs help in viewing his personal problems objectively and in recognizing that his problems are common to most of his classmates. The teacher knows that any class activity that will enhance the student's understanding and appreciation of family relationships will ease the tension during this adjustment period.

To objectify the student's own problems, the teacher asks him to respond (A—agree; D—disagree; I—indifferent) to statements such as the following, which cover family finances; use of family property; authority and obedience (parent-child relationships; democratic processes, i.e., leadership and fellowship); re-

relationships of siblings; growing independence of the adolescent—freedom of decision and action, duties, and responsibilities:

1. Young people should be paid for work they do around their home.

2. Children should be given a weekly allowance.

3. Parents should be allowed to question their children upon the expenditure of their allowance.

4. Whenever any issue which will affect the entire family is to be decided, a family council should be held with all members present to have a part in making the decision.

5. Sundays should be spent with the family.

6. A person of my age should be allowed to have the family car on the condition that he pays for the gasoline he uses.

7. Parents should settle all disagreements between brothers and sisters.

Discussion of students' reactions to these statements assumes any one of various appropriate forms—debate, panel, or group summary and report—but in any event it concerns concepts such as cooperation, generosity, and acceptance of responsibility in one's own home, and gives each pupil an opportunity to evaluate his own situation in terms of various points of view. Some students take the statements home and there discover for the first time that these problems can be discussed with father and mother on a reasonable basis.

Reading follows this initial step in all classes. In C sections it consists of simple case studies and stories illustrating various aspects of family life, with supplementary visual material, cartoons, and dramatizations. For the advanced sections, outside reading is an essential part of this unit. These groups read from an annotated list of biography and fiction, study the relationship of the family to the community, and interpret their own attitudes and relationships in some form of original work—play, story, essay, speech, or graphic illustration.

### *Content in Relation to Current Events*

High XI Problems of Democracy afford an example of content and class activities organized and synchronized with current political events. Beginning with January in the year of a presi-

dential election, the teacher calendars month by month with the class the known political occurrences in preparation for the election in November. He regards events as the units of the course, and subject matter merely as a means for understanding what is taking place.

The teacher believes that this synchronization of events, content, and procedures gives the student an experience in practical idealism which, without loss of faith in the ultimate goals of democracy, will enable him to view with equanimity its human imperfections and still understand and value individual effort directed toward social improvement. The student has studied his government in action with issues and problems moving toward an orderly solution in constitutional ways. He has felt the influence of organized propaganda reaching out through the various agencies of public information and has had experience in evaluating these agencies as they affect the public welfare. He has had practice in the methods of democracy—in group planning and conference and evaluation. He has become aware of techniques through which positive group purposes can be made effective in a democratic society. He has had an opportunity to discover that good citizenship is not in the books but in his relationships and responsibilities as a participant in human affairs.

### *The Appraisal of Musical Aptitude in Personal Management*

Appraisal of musical aptitude is a regular procedure in Personal Management classes and illustrates the use of special teachers in the core program. Since this course is especially concerned with orienting the new student in the school, it affords an excellent opportunity for acquainting him with his own possibilities and with the school offerings available. Four different aspects<sup>3</sup> are presented to the entire low X class: (1) inventory of musical ability; (2) instrumental tone color, with demonstrations by the high school orchestra; (3) melody and rhythm; (4) harmony.

<sup>3</sup> Pearl Marvel Martin, "An Appraisal of Musical Aptitude," *University High School Journal*, June, 1940.

This appraisal of musical aptitude is in no sense a test, but rather a musical inventory, a kind of mirror in which the student obtains a fairly accurate reflection of his ability to retain musical impressions. The material used consists of rhythmic and melodic patterns, dissonant and consonant chords, and differentiations in pitch and intensity, none of which is based on acquired knowledge of music. Ten patterns each of rhythm, melody, harmony, pitch, and intensity, designed to appeal to students on all levels of musical intelligence, comprise the total rating. To at least three out of each set of ten the correct responses are obvious, three others require a fair degree of musical accuracy, and the remainder call for a most discriminating ear and the highest accuracy in remembering a melody phrase. To eliminate the cacophony produced with faulty records, bent needles, and poorly timed machines, the piano is used throughout to assure the most distinct and accurate presentation possible.

By calling for oral class responses to three or four rhythmic patterns the class is quickly challenged and each individual becomes alert and eager to start scoring on a rating sheet devised for the purpose. They form their conclusions by comparison. A pattern is played; students listen and try to retain the musical impression. After an interval of half a minute or so they again hear a pattern which they are asked to compare with the former, to decide if it is the same or different, and to score accordingly. After five subjects of ten patterns each have been played, the answers from the key sheet are read aloud to the group, with each pupil computing his own score.

When the music teacher has classified all the papers and has averaged the scores by groups, the results are discussed in Personal Management classes. The music teacher then confers individually with those who show previously undisclosed aptitude. The names of those with high ratings are sent to low X counselors for use in program planning and each student's rating is sent to the central file for use by other teachers. Information regarding musical experience provided on the lower half of the rating sheet often reveals talented students who have not yet been recognized in the school. The names of these are referred to student leaders for use in obtaining talent for some of the many student programs. About 20 per cent of those who indicate native ability in music find their way into music courses. Some of these are from the group without musical training since the eighth grade.



*Evidence of Recurring Conflict in Values*

A teacher in Personal Management was doing a unit on Recreational Reading. His major purpose was to induce tenth grade students to use the school and the public library as a recreational resource and to acquire a taste for reading various kinds of literature as a leisure activity. When the unit was finished, his only tangible evidence that the class had achieved this objective was a written book report. Students most experienced in this kind of work, who therefore needed it least, wrote the best reports. Subsequent investigation has shown that some of the students whose writing skills were weakest and who therefore rated lowest did use the public library for the first time and have been using it ever since as a leisure resource. Attempts to measure changes in attitudes and behavior with pencil-and-paper exercises are old practices that persist even when the objectives have changed.

For a number of years Personal Management teachers have used various diagnostic tests of English usage as a basis for appraising the student's status in this aspect of written expression. Other expressional needs, being less objective and not so readily ascertained, were not so well emphasized. One of the apparent results of this incomplete appraisal has been the large number of students who later insisted on enrolling in "Mechanics of English" in preference to activity subjects, such as journalism, dramatics, creative writing, and public speaking. While other factors are probably operating in this trend, counselors and core teachers are beginning to express their concern.

A student in high XI social studies wrote a formal term paper on the subject of "Youth Hostels." He visited the local headquarters in San Francisco, talked with local groups, wrote letters to eastern offices of the organization, and finally became so interested that he took a ten-day bicycle tour of hostels in one of the outlying counties. In the meantime the term paper was completed and was sent with others to be read and scored by a reader at the university to make sure that the form was up to university standards. The reader evaluated the student's experience in these words: "This is a well-organized and interesting paper, but the

subject is less difficult than that chosen by some of the other students." Again the question arises: Were not the essential outcomes unrecognized?

Tenth grade students often appear ill at ease and uncertain of themselves in social situations. Accordingly, a class was asked to read a chapter in a book on manners. Thereafter they were tested on their knowledge of what the chapter contained. How they behaved on the basis of the knowledge gained was yet to be observed.

Marks at University High School are important in determining the qualifications of students for university entrance. Ordinarily no student in a preparatory subject is marked higher than a C if the teacher believes his standard of achievement is too low to warrant recommendation in that subject. Two students are enrolled in high XII English B. At the beginning of the course one's knowledge and use of English is comparable to that of a college sophomore; the other's, to that of a ninth grader. This latter student progresses two full years during the semester; but since, by so doing, he has attained to only an eleventh grade level, he is marked C or D or is failed in the course—not because he had not progressed, but because a higher mark would indicate that he was capable of doing advanced work. The former student does all assignments with ease, is marked A on all work done, but at the end of the semester gives no evidence that he has progressed beyond his initial high standard. He receives an A for the work of the semester. These marks obviously do not indicate the progress made during the period of instruction, for the greater progress receives the lower mark.

Teachers are beginning to see that marking on the basis of a single external standard is inadequate. In no core course can a single mark indicate progress toward all objectives. For students in the lower ability levels this kind of marking discourages effort and actually hinders learning; yet it persists in all core subjects except girls' physical education because most teachers are reluctant to discard the present system until more refined evaluation instruments and techniques will insure a more accurate and comprehensive appraisal of the student's total development.

A student in high XII English wrote a superficial report of one

of Maxwell Anderson's plays and the teacher made a notation to this effect in scoring her paper. Investigation revealed, however, that at the time this assignment was in preparation her grandfather had died, her mother had been ill, her father had lost his job, and the family had moved because they could not pay rent. One is forced to the conclusion that under the prevailing conditions this paper was in many respects a remarkable achievement. In this instance the teacher's scoring of the report was in accordance with the facts; but the appraisal of the student's problems in preparing the report was not made, and as a result the real hindrances to achievement were not discovered.

The development and problems of American democracy is the theme of the eleventh-year core. To what extent this core affects the student's practice of democracy in the school is not clear. There is little direct evidence to show that the principles of democracy as taught in the classroom affect the students' attitudes and behavior either now or in the future. Democracy as a system of values that operates not merely in voting for candidates but in all human relationships is a concept much easier to understand as words on a page and as precepts in a classroom than as motives of action in the complex realities of life, where conflicting loyalties are involved.

Fundamentally, in each of the instances noted above, it is lack of knowledge of how students develop and of what affects their development that is involved. School files are filled with discrete data on individual students. From these records of discrete data no teacher in one period a day for one semester can do more than just begin to analyze and integrate this information into a more or less complete and meaningful picture of the student in the classroom. There is need at the present time for a system of cumulative records on each individual as he proceeds from one core class to another—a record not merely of discrete data but of the interpretations of these data by all who work with the student. The Master Data Sheet<sup>4</sup> developed by the Adolescent Study Staff is a fine example of how quantities of discrete data can be brought together, interpreted, and presented

<sup>4</sup> Robert E. Brownlee, "Developing the Core Curriculum at University High School," *University High School Journal*, cited, pp. 150 ff.

in visual form so that characteristics of the individual student appear against a scale of those for his group. A number of attempts at simplification of this procedure in accordance with the limitations which the school imposes have been only partially successful, but the persistence of the demand by core teachers for this kind of record, and their persistence in devoting time to it, is evidence of its practical value.

In conclusion it should be noted that the core curriculum at University High School today is still in progress of development; that the full realization of aims and objectives lies far ahead in the future; that the current program represents a medley of what we want, what we have, and what used to be; and that the present report is one of status and of progress. Results have been slow, as they must always be when a new program is being constructed from an old program and where the old program continues in use until the new one is complete. Looking backward, one is astonished at the progress that has been made; looking forward, one is appalled at the distance yet to go.

# THE UNIVERSITY SCHOOL OF OHIO STATE UNIVERSITY

COLUMBUS, OHIO



The Ohio State University School enrolls about 125 pupils in its kindergarten and six lower grades, and about 275 in its six upper grades. It graduates about 50 pupils each year, 90 per cent of whom plan to enter college. The Upper School opened in 1932, and was a member of the Eight-Year Study from the first. Having no established courses and an exceptional faculty, all new to the situation and eager to experiment, it enjoyed unusual freedom in developing its program. It is a public school in the sense that it is supported largely by state taxes; private in the sense that it charges \$100 a year for tuition and book fees and about \$50 more for lunches, which students are required to eat in school. Students are drawn from all over the city of Columbus. The fact that some come daily from homes fifteen or twenty miles distant makes evening gatherings difficult and the use of the building as a community center impracticable. Common problems are limited largely to those common to the city as a whole.

Both the Upper and the Lower School are housed in the same building, which is new, clean, and beautifully decorated. It has an attractive library and gymnasium but no room large enough to accommodate the whole Upper School comfortably and no theatre. It is adjacent to the College of Education and serves as a laboratory for observation; so considerable time and effort are consumed by discussion with visitors. A limited number of college students participate as assistant or practice teachers. Cooperation with the College of Education is maintained through councils in which representatives of both institutions participate, but the school is autonomous in developing its program. In professional training and rank the faculty is comparable to other departments of the university. Its responsibility for research and publication is probably emphasized more than in the typical high school.

## PURPOSES

The first director of the Ohio State University School wisely refrained from hastening the faculty into any formal declaration of purposes until mutual understandings and common emphases had developed in practice. Much thought was given to purposes, however, in annual planning conferences before the school opened each fall, in stock-taking conferences each spring, in faculty meetings throughout the year, in innumerable meetings of small groups within the faculty, and in planning each new unit of work with pupils. Purposes emerged from a thoughtful evaluation of practices, and became implicit in what teachers were doing. To new teachers, however, anxious to learn about the school as quickly as possible, these implicit agreements were confusing and elusive. One of the undertakings initiated in 1938 was the preparation of a new statement of the purposes of the school. A committee worked on such a statement most of the school year, a draft was submitted to the faculty for criticism on several occasions, and a revised version was adopted in the spring of 1940. This statement follows.

*Statement of Purposes*

A. However great the renown of the one who states a philosophy of life, or however large the number who cooperatively do so, the final test of its meaning and validity must be made within the intimately felt fund of meanings, the experience of each person. Allegiance to any statement of philosophy is, therefore, given with many reservations, and with the realization that its detailed import varies with each individual.

Consequently, a statement of a common philosophy is not a summation and an end-all to thinking. No such statement should purport to epitomize perfectly the system of values to which each member of the group subscribes now, or will subscribe in the future. The hypothetical, not absolute, acceptance of some general philosophy serves the purpose of hypotheses in all intelligent living, the defining of a general direction in which it appears most profitable to move. Such an acceptance is self-consciously made

as a means of promoting progressive integration in the thinking and living of the group. It is an expression of faith before the fact; it is a dedication to the proposition that, working together under the contributions thus agreed upon, the group can build an even more closely knit community of understanding within a framework which is subject to progressive reformulation. This is the democratic way, as opposed to the practice of elaborating differences at the expense of community thinking.

B. The democratic way of life is based upon the assumption of respect for human personality. The optimal development of the individual is the basic criterion of value. What constitutes optimal development is, of course, subject to various interpretations. However, there are certain aspects of human growth which can be specified.

On the physical side the democratic way of life means proper nourishment, shelter, clothing, medical care, and conditions of work that are conducive to normal growth and development. On the mental side it means freedom to plan one's life and to carry out these plans with due consideration for the consequences to oneself and others; to utilize the cultural contributions of the race for the purpose of enriching life, and to utilize intelligence in reconciling conflicts, understanding self and society, and in determining conduct.

A distinctive personality cannot be developed in isolation. It develops only when there is free interplay with other personalities. Full and free participation within a given group, and among groups, is the best way of promoting desirable individual development in a complex, interdependent society. While wholesome individual development is the basic goal, associated living is the better means of achieving it. The test of every social and political organization is the effect which it has upon the individuals who are touched by it. If it enhances and enriches human personality, it is desirable; if it tends to destroy or narrow opportunities for development, it is undesirable, and hence contrary to the ideal.

The development and enrichment of human personality, through living and working together for common purposes and ends, implies the use of intelligence as a method, for only as individuals and groups are free to formulate plans and to carry

out programs of action upon the basis of reflective thinking can human institutions be progressively refined.

Evolving conceptions of the meaning of democracy are reflected in the various interpretations of the democratic methods which are found in America today. One method that apparently is being outmoded with the growth of technology and the increasing complexity of modern society is the method of promoting the worth of the individual through historic individualism and *laissez faire*. An emphasis which seems to be growing in American life is that of charging all with the responsibility for promoting the welfare of the group through broad social planning, involving only such competition as society discovers to be socially desirable. This emphasis seems destined to be extended further in an interrelated society as the better road to a reinterpreted individualism.

C. This statement of the meaning of democracy is the basis for defining and interpreting one function of the Ohio State University School. The school attempts to provide a program which will help boys and girls to understand and to meet their needs, to extend and enrich their interests, to solve their problems in such a way as to contribute to the development of consistent and unified outlooks on life, and to grow in sensitivity to the values and ideals of our democratic way of life. A school program whose efforts are directed toward the achievement of these purposes must of necessity be experimental in character, and subject to constant change in the light of changes in the culture; consequently, it is not possible to set down the details of such a program completely and permanently. It is possible, however, to indicate the major focal points of endeavor around which the program centers, and to show the trend of development of the program through illustrations.

The curriculum experiences purport not only to provide for meeting the needs that are common to all, or nearly all, the students growing up in the contemporary culture, but also to provide for many of those needs which are unique to the individual student. Needs, interests, and problems are considered to be both personal and social in reference, and to grow out of the interaction of the student with his physical and social environ-



ment. Even those needs growing out of the very nature of the organism itself are seen to be the result of interaction with some aspects of the environment; consequently, the curriculum recognizes the reciprocal relationship between the individual and society. The curriculum experiences evolve from continuous student-faculty planning in the light of these significant needs, interests, and problems of young people.

Activities are organized so as to promote democratic values; that is, to provide for the cultivation of critical or reflective thinking; to establish the ability to participate in cooperative living, and a zeal for such participation; and to develop respect for human personality. The development of reflective thinking, or the method of intelligence, is an important aspect of the program because our ideals of democracy lead us to assume that meanings, values, knowledge, and habits are all best derived from the processes of human experience rather than from any form of authoritarian procedure. Cooperative living, as it enriches life through living, planning, and working together for the achievement of common purposes, is held as a significant aspect of democratic procedure. The development of individuality and a concern for this development for all are held to be important phases of growth in respect for human personality.

Since the reconstruction of experience in the light of a consistent philosophy of life is basic to democratic living, emphasis is placed upon helping the student to see and to resolve the conflicts which beset him in a society whose values are being continually reinterpreted. An effort is made to provide a variety of experiences which are appropriate for youth in the major human activities and concerns, in order to contribute to the all-round individual and social development of the individual. The investigation and the study of pertinent individual and social programs are encouraged. Lack of maturity of the students, and the mores of the culture, may place restrictions upon some investigations which the students might wish to make. When this occurs the school attempts to aid the student to understand the background of the restrictions.

The evaluation program seeks primarily to gather evidence concerning progress toward achieving these purposes of the

school, rather than to measure the acquisition of facts and information as ends in themselves.

The administration of the school attempts to provide for the attainment of the basic purposes of the school and to facilitate the optimal participation of teachers, pupils, and parents in determining and carrying out educational policies. It does not exist as an end in itself.

### EVOLUTION OF THE PRESENT PROGRAM

Faculty members have tried to work out as honestly and consistently as they could the implications of their purposes in terms of specific situations. Details of fumbblings and false starts cannot be included, but an attempt is made in the account below to give enough illustrations of earlier stages to show present directions.

#### *Guidance*

In the beginning, members of the faculty held generalized concepts of the needs and problems of generalized children; the planning before school opened was conducted necessarily in rather theoretical terms. The opening of school in the fall of 1932 brought real children with individual personalities and problems. Since that time, research studies on children's needs and purposes, undertaken by groups within the faculty (2, 3, 8, 12),<sup>1</sup> and innumerable experiences with individual children have helped to make teachers sensitive to the wide variation of individual forms in which the generalized needs appear. Experience has also given some increased skill in meeting special problems as they arise.

When the school opened, all teachers were expected to be counselors, and the school day began with a 10-minute home room period. Many members of the faculty objected to this arrangement, feeling that guidance could not be scheduled and that meeting a group of students for 10 minutes was a waste of time. The plan was soon abandoned in favor of one in which

<sup>1</sup> All such figures in parentheses refer to items in the bibliography at the end of this report.

children chose their counselors and, presumably, consulted them at need; the initiative was supposed to come from the child. This also was unsatisfactory since the child who is sufficiently conscious of his problems to seek help is likely to get it regardless of the system.

Meanwhile, in core groups and in all working situations, teachers were helping children to meet not only their academic but also their personal problems. Out of such experiences evolved the present system, in which a counselor is designated for each grade. His responsibilities are not defined in detail, but in practice certain ones are accepted. He has general supervision of the making of students' programs and of later changes. He is chairman of all teachers of his grade group when meetings are needed to discuss problems of curriculum or children. He has general responsibility for the children in the grade, though the faculty still believes counseling is a part of every teacher's responsibility and all share in guidance. An exact division of responsibilities between administration, grade counselors, and other teachers has not been made. Perhaps it would be undesirable, even if possible.

As teachers have become more sensitive to the personalities in their classes as well as to the cultural heritage of their specialized areas, a change has taken place in the relationship between pupils and teachers. The role of the teacher has changed from guide of a conducted tour to guide of a group of explorers. The relationship between class and teacher is, however, unique in each situation. The differences between teachers (elimination of which would be undesirable, even if possible) are important factors at any grade level. Seventh and twelfth grade students show differences because of maturity levels; science laboratories, because of the possibility of bodily injury through carelessness, must be stricter in many ways than the studio. The trend is, however, in the direction of democratic leadership on the part of teachers.

### *Individual Differences*

Another development has been increasing flexibility and skill on the part of teachers in providing satisfying experiences for

all learners in the class, including the very fast and the very slow. The school accepts students regardless of ratings on intelligence tests and makes no ability groupings as such, though certain special study groups organized on the basis of common interests occasionally tend to attract those with similar abilities. Student participation in planning helps to provide pupils with experiences suited to their needs and abilities, since the majority will plan within their capacity and the teacher can soon learn to recognize those children who show little ambition and those who make plans too difficult for them to execute. The form and extent of this participation vary widely with the area. Learning a foreign language, for example, has aspects which limit the field of choice more rigidly than does the study of one's own tongue. But even in learning a skill, such as typing, there is an area in which student and teacher may jointly formulate the plans under which the student works. This planning is done by class groups, by interest groups, and by individuals working within a class plan.

### *Integration*

Progressive change has also been apparent in the relationship between the various areas. The program of the school, as originally set up by the faculty before the school opened, provided six years of required work in the so-called major areas—science, social science, English, mathematics, physical education and health, and the arts—with an elective program in foreign languages. From the very first year, however, some type of curriculum organization which cut across subject matter lines has been in effect in the seventh, eighth, and ninth grades.

The seventh grade began with a core course in which teachers from the English, the social science, and the various arts areas participated (4,<sup>2</sup> 14, 15). In the second year the science area was included. Since then teachers in the science, social science, and English areas have usually been associated with each core, the arts specialists have helped in planning and in many phases of the work, and arts laboratories have been available during core periods. Consideration of immediate environment in the seventh

<sup>2</sup> Pages 29–54.

grade core has frequently emphasized the work in home economics. Varied organizations have been used (1). In the first year the core was more heavily staffed than it has been since that time. One year the experiment of one grade teacher, who called in staff members from other areas as he had need for assistance, was tried in the seventh grade. One year the ninth grade core divided into areas in November for the bulk of its work, retaining a common time for planning and exchange of information. Another year a tenth grade faculty, holding frequent meetings, planned to bring out certain common values in their work: the teachers concerned then carried on their planning with the students in their own areas in terms of these faculty agreements (6, 1939). For 1940-1941 the core idea, with certain important modifications, was extended to all grades (6, 1940). The faculty is still experimenting with this matter of staff assignments in a core program, and with the degree and nature of the responsibility of representatives from the various areas of organized knowledge. Basic to the problem of organization is the concept of the core, and differences in organization represent, to a significant extent, differences among the faculty on that score. An analysis of these differences, and study of the core concept in terms of pupil maturation, needs, and school purposes are among the important current faculty undertakings (1).

Regardless of the particular form of area cooperation, certain important results appear. It becomes necessary for all members of the staff to think of the total program in terms of children, using the possible contributions of their areas as means to further the purposes of the school. The children increasingly look upon all areas of the school functionally, using the shop, library, laboratories, or classtime in subject matter areas, for working out their own purposes and getting skilled help in developing understandings. The competition between teachers and areas for the time of gifted students, which is frequent in many schools although seldom admitted, has largely disappeared, and has been replaced by a universal concern for the well-balanced development of student personalities.

Joint faculty responsibility for the total program has been established in another way. The schedule has always been re-

garded as a function of the program instead of a determiner of it. Schedule making has been done by faculty committees in terms of the values and needs referred to it by the faculty. Near the end of the school year, a general meeting is held at which recommendations of grade faculties and special areas for the next year are considered. The proposed schedule which results is carefully examined by the whole faculty, difficulties are pointed out to the committee, and revisions made until everyone is satisfied that the schedule is the best possible at the time. (The schedule is subject to change during the year.)

### *Administration*

The relationship of teachers and administrators has shown in general the same trend as that between teachers and pupils (9). The redefinition of relationship, while still not clear in all details, has been in the direction of democratic cooperation in terms of common purposes. The early years of the school were full of examples of duplicated functions and of other important ones which went undone because they were nobody's job. This is nowhere better illustrated than in the matter of records, reports, and guidance. Gradually the location of general responsibilities has been agreed upon in practice, though particular phases are still under discussion.

At the request of the director, in the spring of 1939 an executive committee was elected by the faculty to give advice on administrative problems, while major matters of policy are discussed and decided by the whole faculty. The responsibilities of the executive committee have become very broad. Budget matters are referred to it, including maintenance allotments for the various areas and salaries of the staff. The committee also recommends concerning faculty rank. Twelve standing committees through which the faculty works are appointed by this central group. At the opening of school in October, each faculty member names the committees on which he prefers to serve. In the light of these preferences, assignments are made. It is recognized that an intelligent adult should know where he can serve most happily and effectively. Of interest in this connection is the fact that students in conducting their school affairs have worked out

a similar procedure, choosing committees from volunteers for work on a particular project. Interested effort is thus the rule, and it is seldom necessary to compel either student or faculty member to assist with a given activity. In addition to directing faculty organization, the executive committee often makes recommendations concerning disciplinary procedures, all-school enterprises, or matters of policy referred to it by director or faculty.

Special problems are studied and reported by faculty committees, which sometimes are appointed (as just explained) and occasionally organize themselves.

Each year, for the past few years, the director has conducted a seminar in secondary education for graduate students, new members of the faculty, and assistants. This familiarizes them with the program, enables them to raise fundamental questions without fear of seeming naïve or captious, and encourages them to participate actively in the discussion of school problems. Other faculty members participate freely in the seminar, sometimes by special request, sometimes out of interest in the problems under discussion.

### *Subject Areas*

In the discussion above, it might appear that the identity of different areas has been lost. While it is true that the boundaries between areas have shifted and that the assignment of particular course content to particular levels has almost vanished, the demands upon the specialists have increased, and there is no doubt in the minds of children, parents, or teachers whether a particular person teaches science, language, art, or something else.

It has developed in practice that subject matter organization begins to appear in the core. Leisure reading, for example, is carried on by the children in the elementary school; in the seventh grade, the English teacher gives guidance during core time. Book discussions are held on occasion, and near the end of the seventh or early in the eighth grade these discussion periods are scheduled regularly. Core science periods at times have been similarly scheduled, in order to prevent conflict in the use of laboratories.

*Science.* The science program has taken a less definite pattern than have some others, because of shifting personnel, but certain generalizations can be made. It has become increasingly concerned with meeting the needs of maturing individuals and with development of problem-solving abilities and attitudes. The science experiences of the junior high school grades have become an integral part of the core program. The problems are those which present themselves in the progress of the large undertakings. The core in the three upper grades is too new to permit any generalizations. Whether science electives in the upper grades will continue to be taught as was the science formerly required at that level in a broad fields course, the problems studied having their origin in the backgrounds of the children, or whether the interests of more advanced students will bring more conventional organization can only be learned through additional experience.

*Mathematics.* The mathematics program has become increasingly flexible and functional. While textbooks were used during the early years, they are now used chiefly as references and the content studied is selected to a considerable extent in terms of the immediate personal and social needs of the student. Instead of solving only ready-made problems from textbooks, the student is now guided in the solution of those problems that have the tang of reality for him. The mathematics classroom is a laboratory wherein the student learns to recognize the importance of accurate data. He weighs, measures, tabulates, and computes. He studies relationships and examines the implications of his data. Reflective thinking is encouraged at all levels, and in the two upper grades there is a definite emphasis on the nature of proof (8), the actual content varying with the special interests and abilities of the students.

*Social Science.* In the social science field, the increasing pupil participation in planning has meant less emphasis upon chronology as an organizing principle, and much greater inclusiveness than is common. All the social science disciplines are drawn upon heavily in such studies as the relationship of government to business, what war means to people today, or how fascism and communism affect people living in dictator countries. Class



periods are used as much for study and conferences as for discussion, and the uniform class assignment is rare.

The values for which the social science teachers are working are reinforced by the whole organization of the school, the relationship between pupils and teachers, and the orientation of the work in other areas. Students are encouraged by all teachers to use critically information from all kinds of sources. Books, pamphlets, periodicals, radio programs, recordings, pictures, plays, trips, interviews, and many other kinds of experiences are used as means to a fuller understanding of the immediate and larger community. While all classes make short trips in Columbus, it has become a tradition for the eleventh and twelfth grades to make longer journeys to some destination selected by the class after investigation of many possibilities. Trips have been made to Detroit (17), New York, Washington, the T.V.A. (5), and New Orleans, while Chicago, Quebec, and many other destinations have been considered. Planning and carrying out the plans for such trips are activities which have called for a high degree of practical cooperation, and the results have been gratifying.

*Language and Literature.* The English and foreign language programs are much more closely articulated now than formerly. Teachers of the various languages (English, French, German, and Latin) are organized as a single committee. General language is required in the ninth grade, and is a cooperative venture of the language staff. Children may elect a foreign language in the tenth grade only with the permission of this general language faculty, who consider proficiency in the mother tongue a major factor in readiness.

From the beginning of the school, the discussions of literature in English classes were based upon the books which the children had read or were reading. The books recorded by students on their English folders have come to include not only a wide range of books in English, French, and German which are usually classed as *belles lettres*, but also a great quantity not so considered. Many of these are in the fields of science, social science, and other areas (12). Similarly, English teachers find much of the materials for class use in the written work prepared for

reports in other academic areas. Principles of organization (sentence, paragraph, and theme structure) and the varied functions of words are frequently studied in connection with written work developed in core or special area classes. All teachers carry at least part of the responsibility for teaching good usage and acceptable written form.

*Physical Education.* Theoretically, physical education is a part of the schedule of every student every day, though the actual number of periods drops to two or three per week in the higher classes because of special afternoon schedules on certain days. A wide variety of sports activities provides participation for all children except the most extreme physical deviates, and remedial classes are arranged for those who need posture correction and similar aid.

When the school opened, the student body and faculty were divided into four approximately equal groups, called "houses," blue, green, orange, and maroon, and each new student since has been assigned to one of them. This vertical organization was intended to obviate the exaggerated competitiveness which often exists between grades. Houses include, as nearly as possible, equal numbers from each grade. The first year counseling and seating in the dining room, as well as intramural games, were on the basis of house membership. When a group of students worked out the constitution for the School Council (16) at the end of the first year, they based representation on the houses rather than on the classes. As time has passed, faculty members have lost their identification with houses, and these organizations have lost all functions outside the physical education field and Council representation. Council business in the course of the year is sometimes discussed at house meetings and sometimes in class groups. The houses remain important in physical education activities.

House games in all sports give competitive opportunities to both boys and girls at each age level. One of the great events of the year is the intramural field and track meet, when the points won by the smallest boys and girls, competing with others their own size, count just as much as those won by the largest. At first there was no interscholastic competition, but pressure

from the boys and from parents has resulted in "varsity" football, basketball, track, and swimming. The girls have play days with other schools in which a number of teams compete and the games are followed by a social hour. The question of awards was hotly debated for a long time before an agreement was reached by which any organized group in the school could set up criteria, have them approved by the School Council, and then submit to the Council the names of students to whom it wished awards given. The Council was empowered to remove the name of any student whose citizenship was not satisfactory. This provision has resulted in many earnest and thoughtful discussions of the meaning of good citizenship. While many groups may give awards, so far the weight of tradition has been such that only intramural and "varsity" sports awards have been given.

Throughout the years of the school the faculty, and to a large extent the student body and parent group, have given thoughtful consideration to the whole problem of competition. Because it has been so seriously abused traditionally the first reaction was an attempt to avoid it entirely, a tendency to regard cooperation and competition as necessarily antithetical. More mature understanding of psychology and of social institutions has led to the view, expressed in the statement of purposes and in the report of a faculty committee which studied the school athletic program in 1940, that competition and cooperation are both natural, that competition can be directed into socially desirable channels, and that competition in this form involves no conflict with cooperation.

*The Arts.* The school began with a rich elective program in the arts, but with a student body too lacking in experience to appreciate the opportunities. Many devices have been used to encourage students to broaden their interests and to experiment in new fields. Present practice requires all students to work in one or more of the arts, and entrusts the grade chairman with advising children on their schedules (10). These programs of arts electives are kept as flexible as is consistent with worth-while accomplishment. A special event, such as an operetta, may require a complete rearrangement of many schedules until the performance is over.

To make possible an activity to include all grades and to make

room within the school day for interests which are ordinarily extracurricular, many schedule devices have been used. The one which has been most common has been the setting aside of one afternoon, freed from all regularly scheduled classes, for a program variously known as "Free Choice," "Special Electives," and "English-Arts." The groups scheduled in this time have varied widely. In many cases, interests which first appeared there have moved into and modified the content of regular classes. Others have been satisfied and disappeared, while new ones have taken their places. Certain ones remain and always appear: orchestra, dramatics, publications.

In the arts laboratories, students carry on both individual and group projects. Even when special courses are organized, they are set up in terms of the needs and purposes of a particular group. Typing is taught for personal use and students work at their own speed at their own undertakings. "Fine Arts" on a program means that the student at a given hour goes to the studio, where he may paint, model, tool leather, weave, work in ceramics, or engage in various other activities according to a plan which he has worked out with the teacher. The industrial arts teacher and his assistant act as consulting experts to help students develop and execute their individual plans in a shop whose facilities permit work in hot and cold metal; hand and machine woodwork; and coiling, throwing, casting, or glazing clay. Group undertakings, such as printing, radio work, and boatbuilding, may be organized under faculty sponsors.

The nature of work in music and home economics emphasizes a considerable amount of group activity. Students elect chorus or instrumental groups or arrange for instrumental lessons. Classes in home economics set up a group plan of study within which individuals develop their own plans. There is a constant demand from boys for work in this area, though the exigencies of teacher time and schedule seldom permit such groups except as special electives on one afternoon per week.

### *The Health Program*

The health program of the school is a good example of the informal and the formal reinforcing each other. The health office

functions daily in readmitting children after illness, sending them home or putting them to bed when they need it, showing them how to give themselves first aid, and keeping records. Health examinations are given twice a year. Children also come from scheduled classes with health questions which arise in connection with their work. Core groups and home economics classes study foods. Physical education, social science, core, science, mathematics, and home economics classes teach care and understanding of the body, the range of variation included in the concept of normality, sanitation, control of disease, and preservation of community health. These are only a few of the ramifications of the total health program.

### *The Dining Room*

Since most of the students come from a distance, they are required to eat their lunch at school. A balanced meal has always been served at a fixed price. General faculty responsibility for lunchroom supervision has been the rule. The potential importance of the dining room as part of the total educational experience of the school was early recognized, but the mechanics of student participation were baffling. Complaints about food and management were frequent until a place was found on the schedule for a dining room committee to meet within school hours. Three students from each grade were elected. The manager of the lunchroom, the home economics teacher, and one other faculty member worked with them. Improvements in the lunchroom and much more satisfactory relationships have resulted, and some of the possible educational results are beginning to appear.

### *The Christmas Pageant*

As may be seen from the above pages, the years since the founding of the school have brought to all an increased ability to work together for commonly understood purposes. This is never better illustrated than in December when the preparations are under way for the Christmas program, a unique school festival in which everyone has a part. Preparation begins about Thanksgiving week with the choice by the students of a theme and setting

for a pageant. In three weeks or less, necessary research is carried on; scenery is built to transform the gymnasium; and script, music, dances, and costumes are worked out. During the last two weeks before Christmas the school program has to be flexible enough to permit many interruptions, although much regular work goes on as usual. The whole program (a three-hour play with every member of the school an actor, and with no audience) takes place with a minimum of formal organization. The result is possible because of the willing and intelligent effort of many people, who share a common purpose and can see where they can contribute to it.

### *Reports to Parents*

The school has always believed that there are more effective reports of child development than letter or number grades can afford. Reports are consequently in the form of letters to parents; and while the writing and editing of such reports present problems which are still not completely solved, the school has made some progress toward a solution.

The first time these letters were written, all teachers contributed brief notes or paragraphs on the children with whom they worked. These notes were assembled in the office and passed on to a home room teacher, who combined them into one statement. His work was final. The labor was enormous; the results were uneven and far from satisfactory. For a few years the assembled reports on each individual from all areas were read and edited, where necessary, in the director's office, but the load was too heavy. Now they are handed to the grade counselor, who knows the child intimately and who takes up with the director or the teachers concerned any problems of inconsistency. It has become established that statements about work in particular areas are to go out as originally written, and all teachers must take enough care as they write to make this possible. Today groups of core teachers usually find it most efficient to work together on this, discussing first what should be said and dividing the labor of writing. Most area reports are prefaced by a general paragraph, describing the work of the group.

The labor of producing reports is still serious enough that

they cannot be sent out frequently. Letters about new students and those who are making unsatisfactory progress are written before Thanksgiving. Meetings of parents who have children in a particular grade are usually held before the reports are sent out. The general reports on all students go out at least twice but not more than three times a year, but special letters may be sent whenever necessary.

For a time there was a good deal of parent opposition to the abolition of grades, and many meetings were needed in the first two or three years to explain the school's objection to grading or ranking students. Attitudes have changed, however, so that it has been several years since any parent or student has raised the question. The change is probably due mainly to the acceptance which comes from familiarity, but may reflect, in part, improvement in the reports which teachers write. In the long run the deciding element in parental acceptance has doubtless been repeated evidence that the teachers know and understand the children, and demonstration that the school has records of their work which are far more complete and meaningful than any grade. Indeed, these reports are only one small part of a pupil's record. In all areas each student maintains a folder or some other cumulative record of his work. These are always accessible to the students, who are responsible for keeping them up to date and for filing whatever records are needed to make them clear. The problem has been the richness and multiplicity of such files and the fact that they are scattered over the building. In 1938-1939 a committee made a study of all the records and worked out a plan for maintaining an office folder for each student. This cumulative record contains the most significant data and is accessible to all teachers.

### *Discipline*

The school has been concerned with developing democratic discipline. As stated before, to the faculty this has meant as much freedom as individuals and groups were able to handle with profit to themselves and without detriment to others. Instead of many fixed rules governing every situation, it is expected that children will consider each situation and adjust themselves to

it. For example, conversation which is socially acceptable about the sewing tables in home economics is unacceptable about library tables. Order is a function of the total situation.

The acceptance of this definition has many implications which were not immediately obvious but have gradually been recognized. One is that violations become the point at which one guides the learner, not the point for punishment. It has taken courage to permit a student to make mistakes which might have been prevented by the teacher. We believe, however, that if the penalty of the mistake is inherent in the situation, is not too serious, and will fall on the child himself rather than on someone else he should be allowed to make mistakes when he cannot see the value of the advice which would have helped him to avoid them. It is the responsibility of the teacher afterward to help him think through the whole situation, and to make sure that he capitalizes on the experience.

#### CURRICULUM PLANNING

From the beginning the University School staff has held to the principle that curriculum making is a primary function of the teaching staff and the students, both groups drawing upon all of the resources of the community. In practice this means that major curriculum problems of scope, sequence, and administration have been formulated and revised by the faculty as a whole after study and discussion. For example, the core curriculum in its original inception, the various changes that have been made in it from time to time, and its gradual extension into the upper levels of the school have been the concern of the entire Upper School faculty. The teachers of foreign languages and mathematics were as actively concerned in these discussions as the teachers who did more of the actual teaching in core classes. The faculty groups that work in the respective cores plan their programs through consultation with other staff members and report results to the entire faculty. The reader may recall here the previous discussion of the gradual development and extension of the core courses (see the section on "Integration").

The important point to be made in this connection is the fact



that the program came under the careful scrutiny of the faculty as a whole, and further steps were always decided upon in the light of conferences and full discussion. No area was free to develop its own program without the understanding and approval of the entire faculty.

The same general procedure is followed in other areas. A carefully planned program of faculty meetings is held at the end of each year for the purpose of presenting curriculum problems and securing suggestions for improvement. In practice this means that the entire faculty is familiar with the work of each area, and each faculty member has opportunity to discuss freely the work of every area of the school. The reports of the curricular experiences of a given group of students are then mimeographed and utilized in planning with pupils at the beginning of the next school year (6). If a new course is proposed for introduction into the school program, this becomes the concern of the entire faculty. The relation of the new course to the total school program is studied, and a decision is reached only after a thorough discussion by the faculty.

### *Faculty Committees*

The University School faculty has authorized a number of important committees which have a direct bearing upon curricular practices. The procedure of some of these committees will be described briefly:

1. *The Purposes Committee.* This committee, after considerable faculty discussion, prepared a tentative statement presenting in brief form the philosophy underlying the school program, and its implications. This statement was first submitted to the faculty for written criticism, then rewritten on the basis of the resulting suggestions, and in revised form finally discussed in a faculty meeting. The committee then held a number of meetings for the purpose of revising the statement. This revision was again submitted to the faculty and the process continued until the statement was approved by the faculty. The next step, to be taken this year (1940-1941), is to ask each area of the school to study its program with a view to revision in the light of the approved statement of purposes.

2. *The Health Committee.* This committee, taking as its point of departure the statement of purposes, prepared a document setting forth the implications for a program of health education. The technique used was to describe the behavior of a healthy individual in the various aspects of living. Since the basic philosophy of the committee holds that every area of the school has a significant contribution to make to healthful living, the next step, which has been approved by the faculty, is to examine the program of each area of the school, to determine its major contributions.

3. *The Needs Committee.* A continuing study of the needs of children and adolescents is being made. The committee in charge has examined the literature of the field, and has enlisted the aid of the entire faculty in a study of the problem. At the same time, curricular experimentation is going forward upon the basis of previous studies made in the school (1, 2, 12).

4. *Area Committees,* each made up of the personnel of a particular area, are organized under a rotating chairman to study the problems of the area.

### *Pupil-Teacher Planning*

Pupil-teacher planning is the basis of our democratic approach to curriculum planning. The curricular experiences of a given group of students follow no fixed or internally logical sequence, such as would be provided in the average textbook. The following trends seem outstanding in our approach:

1. Preliminary survey of pupils' background and needs.
2. Setting up of criteria for choice of a worth-while group experience.
3. Examination of a range of worth-while group experiences in the light of the criteria set up.
4. Cooperative choice of the best possible experience, with teacher responsibility for so directing the activity as to determine whether choice fits into needs of the pupil and the culture.
5. Caring for the rights of the minority.
6. Actual division of labor and working out of experience.
7. Revision of the group's working plan as needs dictate.

8. Evaluation of the group's work upon completion of the group experience or unit.
9. Transitions into other units by a technique similar to that mentioned above.

A preliminary survey of the pupils' backgrounds and needs as a group and as individuals seems fundamental to intelligent planning. Such a survey enables students and teachers to discover the trends and gaps in in-school and out-of-school experiences and to provide analyses of individual problems. Such a survey suggests criteria for worth-while experiences, and also serves to suggest the range of interests.

Setting up criteria is one of the most significant parts of the pupil-teacher planning experience. Here is a great opportunity for students and teachers to compare standards and to understand each other's values. Furthermore, the listing of criteria in a group discussion tends to accent general group responsibility for intelligent choice and successful completion of a project. The needs of the individual and of the group are compared and the method of intelligence is emphasized.

The application of criteria to a range of possible group experiences exposes the unorganized and emotional nature of many of our choices and emphasizes the necessity for critical or reflective thinking if the needs of the individual and the group are to be balanced. A method often used has been a charting of all the proposed projects, units, or experiences rated in terms of the criteria set up.

Group choice of the most worth-while experience presents many difficulties in preserving a balance between pupil and teacher planning. The extreme of so-called "pure" pupil choice and the extreme of teacher domination through carefully masked and indirect influence are both difficult to avoid. The problem is to make sure that the interests of the students in the unit are high and that the unit is suited to their individual and group needs with our democratic culture as a background. This balancing process usually calls for direct statement by the teachers when the students seem to be overlooking facts or implications, and a recognition of the roles which teachers and students both play.

Group choice often reveals a minority who favor another unit

or project. The inclusion of the minority's ideas in the final plan is usually possible and may improve and enrich the group choice. In one case a majority chose to study the local community, while a minority expressed strong interest in plants and animals. The minority interest was included in the general study and led to a much broader and better-balanced study of the community.

Actual working out of the group's plan involves division of labor so that small groups may take responsibility for specific parts of the total experience. Furthermore, provision must be made for certain common basic experiences, exchange of findings, and pulling together of ideas. In the course of the unit or project it is often necessary to revise the working plan in the light of experience. No pupil-teacher plan is to be regarded as inflexible.

An illustration of the various aspects of pupil-teacher planning which will show in part the general nature of the school's democratic approach to the problem can be taken from an account of a seventh grade core. This group was made up of 14 girls and 16 boys. Seventeen of the group had been in the elementary grades of the University School, while the other 13 were new to the school and had had little previous experience in group planning of any sort.

The coordinating teacher procedure was used in this group. The teacher drew upon the many resources of the school, including faculty members from various areas, in planning and working out the activities for the year. Such a setup necessitates frequent discussion and planning with other members of the faculty so that the coordinator can be more sensitive to the resources of many fields of study for dealing with the problem in hand.

Records of these staff meetings reveal the problems discussed, while the work of the children reveals the enriching influence of these staff discussions. The following illustration is quoted from a counselor's record:

Our discussion brought us to a general consideration of the characteristics of the group and to a consideration of the information concerning the past experiences of those children who had been in the University Elementary School, and of those who had been in other elementary schools. The conclusions follow:

1. The group as a whole seems very dependent. Their work should

be such that there will be many concrete experiences that can lead toward making intelligent independent decisions and toward developing respect for evidence. There is need for careful checking on both group and individual planning. There is also evidence that many need assistance in adjusting to life in the school.

2. They are not unified. Although the seventeen who have previously been in our elementary school have a background of experience and understanding that make for unity, the thirteen new children are not yet a part of the group. Planning with the thirty at present is difficult. As individuals they seem to possess healthy curiosities, but as yet they have little group concern. It is apparent that their next experiences should be a challenge to the whole group, through which they can develop unity as well as individual interests.

3. There seems to be great need for social life. The introduction of the club and its accompanying initiation indicate this need. The whole group needs some social experiences to prevent the formation of cliques.

4. The children seem to have an average amount of creative ability. Our problem is to help the pupils discover something they can do creatively as a group, in addition to encouraging individual creative ability.

5. Great variations in height, weight, and maturation are found. We need to assist the children to see that variation is normal.

6. The children who have been in the elementary school have participated in the following units: first grade, *Animals and Transportation*; second grade, *How the City Takes Care of Its People*; third grade, *China, Japan, Holland*; fourth grade, *Transportation and Pioneers*; fifth grade, *Industries*; sixth grade, *Europe*.

The room in which this group meets and in which their major activities are to be carried on has not been used by a group as young as this for some time. A number of apparent needs have to be met before the group can settle down to living and working in it.

The planning for and the actual solution of the problem of improving the room have necessitated much discussion and free exchange of opinions and ideas as well as working in small groups or as individuals to further the undertaking the whole group had decided upon.

Notes from the record of the group's evaluation of their work are interesting in that they indicate the extent to which the original planning, the various individual and small group responsibilities, the mistakes and successes, the final product, are seen as a continuous dynamic process.

A discussion of improvements in the room gave evidence that the group as a whole enjoyed the improvements that had been made. It was suggested by the group that the textiles, the pictures, and the bookcase did much to make the room brighter and more attractive. The bookcase and the file made it much easier to use the room for our work.

As the original plan was considered, it was obvious that it had not been completed and that some plans had been changed. The point was made that we really planned too much in the beginning and that on several occasions we discovered that some parts of our plans had to be changed because they weren't well planned; that several times mistakes were made in carrying out some part of the plan; and that, in order to correct these mistakes, changes had to be made in the original plan.

The finance committee presented its report. Since the final cost of the undertaking was discovered to be somewhat higher than the cost had been estimated in the beginning, much discussion was stimulated.

The students were then directed to a general discussion of what they had learned through their work. Points were listed on the board as suggested:

1. Had experiences with many tools and materials: shop, fine arts, home economics.
2. Learned to give up personal interests for group interests.
3. Improved in working in groups.
4. Learned to plan better.
5. Learned to correct mistakes.
6. Learned to alter plans as we worked along. (Dudley said he learned not to talk all of the time; Ruth D. said she found out that arguing all of the time wasn't helpful. These two children have mentioned their own specific handicaps to doing good work.)

The group's attention was next directed to the consideration of some criteria our next study would need to meet. The following were suggested:

1. There should be more reading, more writing, and note taking.
2. The study should make use of trips.
3. There should be more experiments.
4. There should be more opportunity for each of us to present material to the whole group.

### Evaluation

The faculty believes that the role of evaluation may be considered from two differing but interrelated points of view. On the one hand, valuing and comparative judgment are essential to the realization of individual purposes and to promotion of the growth which results from these experiences. The faculty believes that the process of *placing value on* an individual experience, with insight into its worth-whileness in satisfying needs or in realizing purposes, is an integral part of all learning. What any student does or becomes depends upon the value concepts which he builds up during these educative experiences. From another point of view, evaluative procedures provide evidences which aid in ascertaining the degree to which behavior goals of the school are being realized and the respects in which the curriculum should be modified. In securing and in utilizing evaluation data, however, the integral nature of individual growth must be recognized. Pupil progress must be reported in terms of comprehensive patterns rather than in terms of isolated habits, abilities, and skills.

In order to evaluate pupil growth it is necessary to collect data and to organize these data in appropriate records. Through the gradual evolution of the school program the following fruitful sources of data have been developed:

1. Cumulative folders of individual pupils in their various areas of study.
2. Continuous health records.
3. Cumulative physical education records.
4. Anecdotal records of teachers concerning mental adjustment, study skills, group participation, and critical thinking abilities.
5. Intelligence quotient as revealed by standardized tests.
6. Performance on subject matter achievement tests.
7. Individual and group interests revealed through tests, personal interview, and teacher judgment.
8. In reading, records kept up to date through test scores from periodic testing, and the cumulative reading records kept by each individual pupil.

9. The cumulative reactions of pupils on the P.E.A. Social Problems, Social Attitudes, and Critical Thinking tests.
10. The reactions of parents to the effectiveness of the school program.
11. Records of our graduates' success in college and life.

The data yielded by the above sources are summarized and interpreted in relation to the purposes in view. For the individual pupil and the parents, this summary takes the form of the pupil progress report described in the section on "Reports to Parents." This is further supplemented by personal counseling, and together these practices often operate to modify the plans of individual students. Faculty committees study the records and interpret them in the light of the guiding purposes of the school.<sup>3</sup> The committee recommendations resulting from these studies are presented to the entire faculty for consideration and adoption, and ultimately find their way into the general curriculum.

#### THE DEVELOPMENT OF CRITICAL THINKING

In the statement of purposes which give direction to the program of the University School appears the following:

The development and enrichment of human personality, through living and working together for common purposes and ends, implies the use of intelligence as a method, for only as individuals and groups are free to formulate plans and to carry out programs of action upon the basis of reflective thinking can human institutions be progressively refined.

The very nature of democracy requires that each person be free to direct his own life while he recognizes his obligations to the group of which he is a member. In any such atmosphere the disposition and ability to study problem situations is peculiarly necessary. Intelligent social action growing out of free association and communication of ideas is recognized as one of the major ideals of a democratic society.

Critical or reflective thinking originates with the sensing of a

<sup>3</sup> Many of the references in the bibliography at the end of this report include interpretations of these data and illustrate the nature of the evaluation program.



problem. It is an effort to solve the problem and to reach a tentative conclusion which is supported by all available data. It requires creative insight, intellectual honesty, and sound judgment. It is the basis of the method of scientific inquiry. The success of democracy depends to a large extent on the disposition and ability of citizens to think critically and reflectively about the problems which confront them, and to improve the quality of their thinking is one of the major goals of education.

The faculty recognizes that the acceptance of this responsibility has very important implications for both content and method. The problems studied should have their origin in the daily living experience of the students, and they should be studied in a manner conducive to the free play of intelligence. A student is not likely to enter actively into discussion on any point unless he knows that his honest opinions will receive respectful consideration. Nor is the cultivation of reflective thinking the special responsibility of any one subject matter area. It is rather the concern of all areas in the school, and there is no situation at any age level which calls for an intelligent decision which cannot be utilized to help in the achievement of this important quality of thought.

Early in his educational experiences the student is faced with situations which encourage him to recognize problems and to undertake their solution. This procedure is continuous from the kindergarten through the twelfth grade, and it is thus that the student becomes increasingly familiar with the process of problem solving. He learns what it means to define a problem, to eliminate irrelevant data, and to select the factors which are pertinent to its solution. He learns that some of these factors have a great influence on the solution while others are relatively unimportant and can safely be ignored. It is necessary for him to decide on the factors which are to be retained as well as those which are to be rejected, and it is out of such experiences that he comes to appreciate the tentative character of any solution thus evolved. He has the experience of selecting a tentative approach to solution, of gathering the needed data, of organizing these data, of examining any relationships involved, and of interpreting the conclusions to which the data lead. This inter-

pretation necessitates establishing unambiguous relationships between symbols, experienced events, and processes. The acceptance of this point of view is reflected in the general organization of the University School, in the nature of the curricular experiences, and in the method by which they are carried on.

Many opportunities are provided throughout the school in which groups of children cooperatively define and set down the problems that are pertinent to a large undertaking and that are of interest and concern to the whole group. Within the framework of these large undertakings, there is opportunity for the individual child to discover and define problems for which he assumes responsibility and through which he makes a unique contribution. The core organization, wherein students and teachers cooperatively plan large units of work, provides many such opportunities.

Previous sections in this report have described such procedures. The reader should note that faculty discussion of the background and particular needs of the class, students' consideration of their own resources and the resources of school and community, and their development of criteria all contribute to discovery of the problem. Such questions as "Are we ready for the work?" or "Does the unit offer opportunities for all of us?" are, at the child's level, steps in this same process. Similarly, "Will there be opportunities for trips, interviews, or use of movies?" "Do we have sufficient library material?" "What belongs to this unit?" and "Which parts should everyone work on [basic elements] and which can be individual projects?"—all these offer opportunity for analysis and definition of the problem. Organizing reports, relating trips to library work, and supplementing reading by laboratory experiments are examples of the problem of attack. Finally there is careful evaluation, found in selection and presentation of reports; in group discussion of false efforts, values, and next steps. For more detailed accounts of core procedures, the reader is referred to a student record of a seventh grade unit found in *Were We Guinea Pigs?* (4), to a faculty record *Eighth Grade Unit on Housing* (7), or to more general published accounts (6, 14, 15).

This same general approach to the definition and solution of

problems is found in all areas of the school. In the arts area, for example, an individual student or a group of students selects a problem on the basis of carefully considered values which have been defined through the combined thinking of both students and teachers. Before undertaking a project in any one of the arts laboratories, such questions as the following are considered:

1. Will it provide a new and worth-while experience?
2. Will it serve the purpose for which it was intended?
3. Will the completion of this project require more time than can be justified?
4. Will the needed materials and equipment, such as tools and machinery, be available?
5. What will be the cost of the materials and how will it be met?

Once a student has an idea which he would like to express through the medium of the arts, such practical questions as these require him to exercise judgment in defining the actual nature of his problem.

In the science classroom the interests of the children are reflected in the questions which they raise; and while these questions are often specific and narrow in scope, they do suggest the larger problems which may be studied. Under the guidance and direction of the teacher, the analysis and classification of these questions have led to the definition of such problems as:

1. How do living things grow?
2. What is the nature of matter?
3. Is there any relation between air pressure and the weather?
4. What is the source of power in machines?

An illustration will show how reflective thinking develops in social studies. The members of one class became conscious that their prejudices, attitudes, and beliefs were operating to obstruct their thinking about certain socioeconomic problems. Someone raised the question as to how these ideas originated, and this led to a study of public opinion. The problem was defined as "Understanding How Public Opinion Is Formed, and Particularly How Our Own Opinions Came About." Once the problem had been defined, students took active part in planning for its solution. Suggestions were carefully considered, ideas awkwardly ex-

pressed were refined and clarified, and the whole process was utilized as an opportunity for teaching effective methods of problem solving. The manner in which the students studied this problem is described in a recent publication, "The Making of Their Modern Minds: the Study of Public Opinion" (17).

Reference has previously been made to a seventh grade project which included improvement of the classroom (see section on "Pupil-Teacher Planning"). The role of an arts project in developing careful thinking is illustrated thereby. The fine arts teacher was invited to help. She drew from the pupils a list of possible ways of making the room more beautiful and functional. In order to stimulate other ideas, magazines and pictures of furniture were brought in. After pupils spent a period browsing through these, the list was extended. Experimentation and discussion were necessary before the pupils could decide which among the various suggestions would be in keeping with the general atmosphere and function of the room, and within their budget and their own limitations. One group of pupils explored possible ways of making colorful draperies for the room and brought their recommendations before the whole class. The teacher borrowed a supply of textile samples from a local decorator, and the class discussed these as to scale, motifs, color and spirit, eliminating some colors and forms and deciding that others were more appropriate for their purpose. Another group of pupils investigated the costs of various types of textiles, paints, and wood. Others talked with the industrial arts teacher to find the cost and time needed to make the kind of bookcase they had in mind. After all necessary information was gained, they made their decisions as to just what they wanted to buy and make. At this stage came another exploratory period, during which various small groups tried out different ways of making textiles, arranging and designing furniture. This exploration involved the measurement of the room and the making of scale and full-size drawings. Once it was decided that they were to use monk's cloth with a pattern of stripes of varying widths, hand-blocked in colors related to the wall tint, about twenty of the class undertook the job of printing the twenty yards of material needed. Many weeks went by before the curtains were hung, the book-

case completed, the plants grouped, and the pictures hung. At the end of this time both class and teachers felt the need for being critical about the work as it appeared in finished form. There had been criticism during the process also; for there were many times when nothing looked right, and frequently changes were made as it became evident that initial plans were inaccurate.

Final evaluation was postponed until the group had lived with their creation long enough to sense it, when the group spent two class periods discussing the results of their labors in terms of their own development and the product itself.

The mathematics teacher assumes responsibility for a study of those problems wherein the data are primarily quantitative. Among those defined and studied are such problems as a comparison of certain bodily measurements of the pupils, the normal height for students in a given age range, a comparison of the absence and tardy records for each of the different grades, when motoring is most dangerous, costs of owning and operating a car, and the relative costs of owning and renting a home. This does not imply that no textbook problems are used, but it does have important implications as to how they are used. Problems from a variety of texts are frequently helpful as source material; but in such cases the student recognizes that the problem has already been formulated for him and that pertinent data are given, thus eliminating the necessity for two steps which are essential to the solution of the problems one meets in the affairs of daily life.

If the problems mentioned in these numerous illustrations have one characteristic in common, it is that they are of genuine significance to the students who study them. Any potentialities which these problems may have, however, for the development of critical thought are not found in the nature of the problems themselves, but rather in the method by which they are studied. In all cases the student is faced with the necessity for clarifying and defining the problem before he can proceed with the solution. With the other members of his group he participates in planning the solution and in the selection of those factors which are considered pertinent. Collection of needed data involves

many kinds of activities, the variety and extent depending upon the nature of the data needed. Library materials relating to the problem are examined, pamphlets are studied, trips are planned, needed conferences are arranged, people are interviewed, competent authorities are invited to consult with the group, and the facilities of the school laboratories are extensively used. It is also true that in such cases the collection of the data calls for the use of measurement which involves the setting up of necessary controls and the use of measuring instruments, such as the meter stick, the balance, the micrometer, the watch, the thermometer, and the like. Through the use of graphs, charts, tables, and other available methods, the data thus collected are organized and presented for consideration and study. Interpretation calls for a variety of abilities ranging all the way from a clear and precise understanding of the symbols used, as well as the relationships between them, to control of such mathematical techniques as are involved in statistical procedures and in the use of general formulas. In all cases, however, there is need for the establishment of unambiguous relationships between symbols, events, and processes.

Through this entire process the attention of the student is directed to a consideration of those factors which contribute to dependable generalizations as well as to those which lead to doubt concerning the validity of the conclusions reached. Questions are encouraged concerning the accuracy, reliability, and adequacy of the data used, and concerning methods of work. Implicit assumptions are examined, until this kind of critical examination becomes an inherent part of the problem-solving process.

Clear—critical and reflective—thought demands an understanding of the role of language, and careful consideration of the way words work. This is true whether the student is attempting to formulate conclusions based on his observations of a laboratory experiment or to judge the truth of an argument. Attention has been called to the fact that the written work of the core gives the teacher of language abundant opportunity to check the student's writing against the operation represented. A sentence is thus "correct" only when it says what needs to be said. Not only must a verb agree with its subject in number but that subject

must derive its number from the object or objects named. Situations in which language in its varied forms must be considered are numerous and differ widely. For example, the student who is trying to find facts about floods in Ohio learns that the date when a book was published is important in evaluating the contents. In reporting a trip to the packing house, he discovers that it is necessary to distinguish between number of *cattle* and of *cows* slaughtered per day. Thus, step by step, he gains in ability to select words and to interpret them in terms of context.

In more advanced classes, students examine the varied purposes of language. They discover that words communicate feeling as well as ideas, and that feeling is frequently carried by association rather than meaning. Their individualized writing program gives them a range of purposes among which they distinguish these varied effects. They discover, also, that frequently words are used without clear connection with their counterpart in experience—such words as *honor*, *democracy*, *justice*—and that these great words are unusually precious but extremely misleading if used carelessly. Analysis of the assumptions and experiences back of so simple a word as *giant* or so complicated a symbol as *dictator* leads to careful use of language and enables the student to make it his tool rather than his master. In arguments, students are encouraged to ask “What do you mean? Can you give an example?” rather than to turn to a dictionary for definition or to quibble over terms. This study of language permeates the whole school program, but has its focus in English classes. It is, of course, involved in the study of propaganda (see pages 748–749), formulation of scientific reports, and mathematics.

During the last two years of the school program this emphasis on critical or reflective thinking is continued through a study of the meaning of proof which draws upon the content of demonstrative geometry for the purpose of illustrating important characteristics of methods by which conclusions are established (8). This kind of subject matter is particularly appropriate, for the concepts considered and the ideas studied are devoid of strong emotional content. The student's native ability to think is not stifled by prejudice or bias. Under the guidance of his teacher,

he enters into such significant learning activities as creating and refining his own definitions, critically examining the assumptions he is willing to accept, and studying their implications. He "learns by doing," and there are potential refinements about this kind of "doing" which are helpful in developing his critical and analytical insights. He slowly becomes conscious of the fact that the so-called "laws of geometry" were not divinely revealed to some mathematical Moses in a Mount Sinai experience, but that they are the logical outcomes of the definitions and assumptions to which he himself has agreed. He learns what it means to challenge an assumption, for in the exercise of his free intellectual sovereignty he can change an assumption to suit his own individual ideas and trace the inevitable effect of this change on the conclusions which depend on that assumption from which they are derived, and he is thus introduced to the idea of the relativity of truth.

It is recognized, however, that to study situations which involve only the idealized concepts of mathematics is to limit the extent to which the kind of thinking developed may be used. Transfer is secured best by training for transfer, and the methods of thought used so effectively in connection with geometric content are extended to situations beyond the narrow confines of mathematics. The student, for example, is asked to examine the Declaration of Independence and to select the assumptions which the signers of that document considered essential to democratic government. His attention is directed to the quality of argument found in political speeches, editorials, advertisements, and the like. He is asked to analyze arguments of this type, selecting the words and phrases on which the validity of the argument depends as well as the stated and unstated assumptions which are essential to the conclusions reached.

The problem of determining the degree to which the critical thinking of students has been improved is difficult. Included in the tests prepared by the Evaluation Staff of the Eight-Year Study are some which have been very useful for this purpose: Interpretation of Data, Application of Principles, Application of Certain Principles of Logic, Nature of Proof. It should be pointed out, however, that the ability to think critically is of little value



unless it is actually used; and while the results of these tests do indicate that the students have potentialities for critical and analytical thought, evidence is needed as to whether or not the actual behavior of the students is consistent with the results indicated. The freedom of discussion encouraged in each classroom, the opportunity to raise significant questions concerning problems under consideration, and the respect which teachers have for the honest contribution of any student are all factors in providing continuous opportunity by which evidence of this sort may be secured. Other fruitful sources of such evidence are found in the meetings of such groups as the School Council, the Lunchroom Committee, the Athletic Committee, Citizenship Committees, and the like, where students grapple with important problems related to the life of the school. The reaction of one class of students—the first to complete the six grades of the Upper School—to this continued emphasis on critical thinking is well described in Chapter III of *Were We Guinea Pigs?* (4).

As the staff is primarily interested in the growth in critical thinking abilities and in the actual behavior of the children, it was thought profitable to survey the judgment of parents as to the extent that individual children really attacked their realistic problems with thoughtfulness and intelligent insights. A questionnaire was prepared and sent to all parents of the student body, and a large majority of them responded. An analysis of these replies revealed that in the judgment of the parents the children were becoming increasingly habituated to an intelligent solution of their problems. They were becoming more skillful in recognizing weaknesses in arguments; more willing to set aside personal prejudices in favor of consequential evidence; and more inclined to hold judgments tentatively, subject to new evidence. Although these behavior tendencies were not attributed solely to the effects of the school program, it is believed that child development is proceeding in directions consistent with the general purposes of the school and that curriculum practices should be continued or modified accordingly.

## CONCLUSION

The development of critical thinking is but one phase (although a most important one in the eyes of the staff) of the work of University School. Experience with democratic processes in action, consideration of these processes as desirable cultural ends, understanding of self as a phase of mental hygiene—these and other aspects might be discussed. Similarly, curriculum construction is but one phase of faculty cooperation. A chapter might well be written on inservice education of staff members by one another, an education concerned with sociopolitical understandings, the arts, and science. The elements chosen for elaboration in the sections on "Curriculum Planning" and "The Development of Critical Thinking" were selected because they have received emphasis and also because they illustrate clearly the fact that any work of the school affects all areas and all members.

As the faculty looks back over the Eight-Year Study, over the mass of detail, the failures and successes, one thing is apparent. The democratic process has often been wearing, and teachers have worked hard; but teachers as well as students have found that to use the method of intelligence and to work cooperatively for the solution of problems is the way of growth.

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# THE WINSOR SCHOOL

BOSTON, MASSACHUSETTS



The Winsor School, Pilgrim Road, Boston, is an independent day school for girls organized in eight Forms, from the fifth through the twelfth grades. We have 270 pupils and a staff of 45 full-time teachers and administrators. There are between 30 and 40 girls in each Form; each Form has a home room and a home room teacher for special guidance. For class study in different fields each Form is divided into two or three groups; there are 12 to 15 girls in the study classes. Our Lower School, of four years, gives a foundation in fundamental skill subjects, in history, in science, and in French; in the eighth grade, our final year in the Lower School, every girl has a year of beginning Latin and an introduction to algebra. The Upper School, of four Forms, has been for many years preparing the majority of the girls for the examination colleges. The general objectives of the school, stated in a later section, attempt to give our educational philosophy.

We welcomed the opportunity given by the Eight-Year Study for the reconstruction of a secondary school program for four main reasons. First, we wanted a freer hand in introducing material charged with interest and rich in value for the student today which we had not been able to use under the 16-unit plan; second, we believed in the possibilities of a scheme which, in breaking down subject barriers for a large part of the work, makes for greater maturity in the learning and in the teaching process; third, we wanted to make a better adaptation of the work to the individual student by providing for greater differentiation in part of it in the last two years; fourth, we felt it very important that the students should have clearer understanding of the problems of civilization, which a greater emphasis on social studies could give, in order that these young people

should develop a greater sense of social responsibility for the future.

The groundwork of our new plan grew out of a year's discussions on aims in education in teachers' meetings the year before the Eight-Year Study group started. The main outlines of the plan first submitted to the Study group was the proposal arrived at by the whole teaching staff of the school. The details were worked out by smaller groups of the cooperating teachers working with students in the different years. They developed the plan a year at a time, beginning with the ninth grade year, as our first experimental class moved along.

We believed our best contribution to the Study could be made by dividing our college preparatory group into two divisions of approximately equal ability, one following the new plan with a main-unit curriculum of social studies, the other proceeding with the old 16-unit plan. We have done this throughout the years of the Study and have checked the results by standardized tests; success in college; student, parent, and teacher opinion. In the course of the Study we have naturally modified plans in some of the details. Our greatest change has been to turn the whole ninth grade class over to the experimental program because, after three years, students, parents, and teachers were convinced that the community study combined with the American history (a combination adopted after two earlier experiments) met so unusually well the needs of the students that no one should miss it. The division into the two groups, therefore, now applies to the last three years of the program. In some aspects the social science materials are used by both groups. The new plan has discovered suitable new materials and methods which have been incorporated in the program as a whole.

### *Student Government*

The student government organization of the Winsor School was granted a charter more than twenty years ago and has had a vigorous growth. The organization is that of a city with each class functioning as a ward, with a legislative council, a mayor, a judicial department, committees on order and conduct, public health, and charities. The nine wards, including one ward of

teachers, elect their ward leaders, who conduct the business meetings of each ward, plan for elections, and report from time to time to the mayor. Each ward nominates in the spring members for the Council. Two members are elected by school election from each ward's nominations. The Council meets every two weeks and is open for discussion of any problems any member may bring up. The Council makes the laws concerning general behavior, order, and quiet in school. The committees, with representatives in each class, are responsible for enforcing these laws. The mayor, nominated in a convention of the three oldest classes and elected by the school as a whole, is the chief executive officer. She plans for and conducts mass meetings of the whole school. Any violations of school city laws are brought to the attention of the four student justices, who hold court once a week. They hear complaints and deal with offenders.

All committees are appointed by the Council and report plans for approval before submitting them to the wards or to the school in a mass meeting.

A large number of students, through the committees, the Council, and the ward organizations, have experience in the government in the course of a year. The interest in and feeling of responsibility for self-government is very strong.

### *Music, Art, Dramatics*

Music and work in the studios is required of everyone through the ninth grade. In the final three years of the school the work in these departments is elective. In music a large school orchestra and a choral class of 60 members from the three upper classes enrich the life of the school. A large library of records open to all students enables them to enjoy the world's greatest music. A two-year course and a three-year course in music appreciation, which may be offered as part of college preparation, is open to students in the three upper classes. The studios for painting, drawing, and sculpture are open for work for any student who elects it. The Dramatics and Speech Department has required work with the younger girls and optional work with the older girls through a dramatic club, a play-reading group, and class

plays. These three departments have a constant part in the active life of the school.

### *Current Events Forums*

Two or more current events forums, with weekly meetings, are organized each year from members of the three upper classes for discussion of questions of current interest. These forums, under the leadership of two members of the History Department, elect a council which meets for luncheon once a week and makes the plans for the discussions for that week. The work is all voluntary and the students usually carry on panel discussions or debates. The teachers help with material for speakers, take part in the discussions, and upon occasion secure outside speakers.

### *Organization of the Plan*

In looking at the chart of the new plan program on page 763, you will see that the work for each year is organized around main units, with associated studies outside the main integration. Several cooperating teachers are working with the students in each main unit.

The main units, involving more than half the students' time, are planned to draw from the fields of history, literature, science, and art—in other words, civilization developed, as it is, through what man has done and is doing with his environment, spiritual, artistic, political, and scientific. The sequence of the units is planned to begin with "The American Scene" and the here-and-now in the community study, and to concentrate again on the present in the final year. In the two years in between, there is a chronological order for the cultures studied; but the method is the problem method and the point of view is that "we study day before yesterday in order that yesterday may not paralyze today, and today may not paralyze tomorrow." As we deplore forced and strained correlations, some studies are planned for outside the main unit. In the last two years French is part of the main unit, with French literature in French; in the first two years French (started in the sixth grade or earlier with us) is still in the tool-subject stage. There are many cross relationships with the separate studies, and the fact that all the teachers of



each student are working closely together gives flexibility in planning and makes for a greater sense of unity in the learning process.

In the last two years we give the mathematical girl a chance to take one path and the language-minded girl another. We prefer the greater thoroughness and firmer foundation in a chosen field that this gives to the doubtful advantage of the former spread for everyone in the last two years, which sometimes discouraged a potential scientist loaded with languages but with little linguistic gift, or a student ready and eager to profit by unusual opportunities in languages or arts who found a disproportionate amount of time spent in the mathematical field. We take care that all students have an adequate fundamental foundation in skill subjects, and the main units give common background. The greater flexibility of the new plan also enables us to make adjustments for the girls who work in different ways; e.g., to open fewer fields to the girl who gets most from intensive work.

Year by year daily records of each unit of the work were made. These records give mimeographed assignments, copies of unusual material culled from different sources, and a detailed account of the presentation, the discussions, and the activities followed in most of the projects.

### *The School's Educational Aims*

The aim of education here is the development of each student in an understanding of herself and of others that will help her to live generously and intelligently as a constructive member of a steadily widening social group. To this end the school is working for:

1. Health—physical and mental.
2. Social responsibility, the development of intelligent concern and good will in action in a democratic society.
3. Intellectual power based on integrity, disciplined self-direction, and organized knowledge.
4. Aesthetic growth, the development of durable satisfactions in creative experiences and activities and an awareness of and desire for beauty in an environment.

## CHART OF THE NEW PLAN PROGRAM

Grade

MAIN UNIT

ASSOCIATED STUDIES

|     |   |   |   |
|-----|---|---|---|
| IX  | COMMUNITY LIVING<br>AND UNITED STATES HISTORY   | MATHEMATICS<br>LATIN II<br>FRENCH<br>MUSIC<br>STUDIO  |   |
|     | Historical Background<br>Social Civics<br>General Science Units<br><br>Composition and Literature   |   |   |
| X   | THE ANCIENT WORLD<br>Greek Roman Medieval   | MATHEMATICS<br>FRENCH<br>PHYSIOLOGY<br>OR<br>LATIN III  | Music: Theory<br>and Practice<br>Studio<br><br>↓  |
|     | History Literature Art History<br><br>English Composition   |   |   |
| XI  | DEVELOPMENT OF THE MODERN WORLD<br>Part I. Renaissance to 19th Century  | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">↙</div> <div style="margin-right: 10px;">↘</div> </div> LANGUAGE<br>Latin IV, V<br>or<br>German I, II<br>or<br>Greek I, II<br>or<br>Spanish I, II<br><br>↓ | MATHEMATICS<br><br><br><br><br><br><br><br><br><br>or a Third<br>Language<br>for the<br>Linguist<br><br>↓ |
|     | History Art History Astronomy<br><br>English Literature French Literature<br><br>English Composition  |   |   |
| XII | DEVELOPMENT OF THE MODERN WORLD<br>Part II. The Last 150 Years  | PHYSICS<br>OR<br>CHEMISTRY  |   |
|     | European and American History<br>English Literature French Literature<br>English Composition<br>Biology (except for girl concentrating<br>in mathematical sciences) |   |   |

Note: Physical education is required throughout the school. Art and music are required through grade IX, optional in grades X, XI, and XII. Special current affairs forums and a choral class are open to grades X, XI, and XII.

## THE CURRICULUM

## Ninth Grade—Winsor Form V

The aim of this year in the main unit is to give the students the fundamental developments in their own civilization, and to continue outside the main unit the skill subjects started in the Lower School and needed as preparation for other advanced work later; that is, algebra, French, and Latin. The main unit (drawing from the fields of history, literature, composition, with some units in science and some introductory work in architecture) is planned to give a fresh approach to history and to awaken interest and concern in the problems of social civics and elementary economics, especially in the community study the last half of the year. In this year, as in the following years, the students and two or more teachers are working together, taking part in the projects and the discussions.

In the first half of the year a background in American history is built up. In the choice of material, emphasis is laid on the ideas and institutions which are characteristic of our society. We begin with a series of maps of various kinds to familiarize the class with size, variety, and resources of our land. In this physical setting we follow the different civilizations which flourished here and later clashed—the Spanish in the Southwest, the French in the Mississippi valley, the British on the Atlantic seaboard. From the Colonial period we select for special study such topics as the charters and the development of the town meeting. In the Revolutionary period the work centers on three important documents: the Declaration of Independence, the Northwest Ordinance, the Constitution. The continuity is carried throughout by a textbook study from Beard and Beard, *The Making of American Civilization*. In studying the growing importance of immigration and the new West we use such books as Havighurst's *Upper Mississippi*. We make a special study of George Washington as the creator of precedents, Thomas Jefferson as political philosopher and supporter of State rights, Andrew Jackson as policy maker. In the pre-Civil War period we deal especially with the contrasting ways of life in North and South,

the various attempts at compromise, and the sharpening of the issues by the time of Lincoln. The character and achievements of Lincoln are especially studied with the Lincoln-Douglas debates, readings from Sandburg's *The Prairie Years* and *The War Years*, studies of poems and plays about Lincoln. The development of the industrial age is approached through the study of the community.

In the community study we use the city in which we live as a kind of demonstration laboratory for elementary economics, civics, science, and architecture. We visit an industrial plant or an institution every two weeks, while at the same time we are doing textbook study in social civics. In the eight years we have followed this plan we have varied the scheme somewhat each year to meet changing conditions and changing needs. The account given here is of necessity a synthetic one, giving the main outline of the scheme with illustrations from different years.

Several years we began this part of the study by attempting to place our particular community in perspective—in time and place. Drawing on the history and geography studied in the earlier years, we surveyed briefly the effect of past events on the Boston community, the way history made a community in this particular spot. This led naturally to what a community is and why industrial communities develop where they do. We used charts, graphs, maps showing iron, coal, transportation facilities, agricultural areas, comparing this region with others. In the introductory unit we inevitably found ourselves considering the sources of power—a fundamental factor in any modern city. Study with the science teacher led to work in the laboratory on kinds of power and power machines, such as the dynamo, the steam engine, and the electric motor. This work partly preceded and partly followed a visit to the L Street Power Plant, which furnishes electricity to metropolitan Boston. At a later date we visited the New England Fuel and Transportation Company, which makes coke and furnishes gas to a large part of the region. In the same weeks we were beginning our study of elementary economics.

After the first few trips the students have become increasingly aware of the urgent need to understand economic terms and were

ready to learn more of the problems involved in production, distribution, and consumption. We have many days of textbook study. We have tried different texts and are now using Goodman and Moore, *Economics in Everyday Life*. We have also used Public Affairs pamphlets, Consumers League material, government pamphlets, city-planning pamphlets—material collected afresh each year according to the needs of the study. Reading material is constantly related to what is seen on the trips. Hours, wages, workmen's compensation laws, the development of unions, the problems of management, and other factors in production became more significant because of the trips to a textile factory or a rubber factory; a visit to one of the big chain stores' distributing centers, or to a motor assembly plant, aided in understanding other aspects of the problems of production. We have usually spent some time on the consumer's stake in the present scheme of things. The waste in distribution and the exploitation of the consumer led several years to a brief study of cooperatives.

The study of social problems grows logically from the economic study. The students have become increasingly aware of the social problems that have accompanied the herding together of a million or more men in a great industrial city—in many cases to tend machines that need fewer and fewer men to tend them. We begin this study with an examination of what it costs to live. We study actual budgets from different economic levels, including the budget prepared by the Community Health Association and the budget for families on relief. After that we survey briefly the distribution of income in the United States and in the City of Boston. The causes of poverty, the existing ways of meeting the situation when all income stops, and the ways relief is given lead to a brief study of the problems that grow therefrom. One year we had an exceptionally able organizer of social work direct the class for a week. Under her guidance we made a special study of one region which the organizer herself had surveyed. Several years we have visited the new housing projects in the region under the direction of a member of the local commission. Each year we have spent a morning at one of the Community Health Units established by the White Fund, where we saw a cross section of the kind of remedial work that is going on in the

different agencies. The pupils have had a fairly close connection for several years with the Family Welfare Association and contribute to its work. Under "Public Health and Sanitation" we have taken up questions of water supply and sewage disposal. Some aspects of these problems were first studied in the science laboratory. The science teacher planned a trip to one of the metropolitan waterworks. Milk and its distribution has been an exceedingly interesting part of the public health study. One year one of the parents, a doctor on the Milk Commission, helped us form our plans for this study. We have visited each year one of the large distributing and pasteurization plants.

The writing of topics and reports of trips, the intensive study of related literary material, and the direction of extensive reading is carried on with English teachers who are working in the group. The writing has improved, we think, because of the obvious and practical need of communication of ideas in which there was real interest. A library for extensive reading in fiction, biography, and essays related to the topics studied is available. For intensive study the poetry, novels, and essays are for the most part chosen from American literature which has literary as well as social significance.

Many questions are opened which cannot be adequately followed up in a ninth grade study. This is done deliberately and has in many cases started lines of future interest which the students have followed in the next school years and in college. Within this general framework of economic and social problems in the community, differing in details each year, the students have had many new points of view presented, and an introduction to material unfamiliar to many of them. Their satisfactions seemed to come from their conviction of the importance of what they were learning.

#### *Tenth Grade—Winsor Form VI*

In the tenth grade, the second year of our plan, we begin the three-year chronological study of past cultures. The different civilizations which flourished at different times and which make the cultural heritage of Western man are approached with a view to their significance for problems today. Although the ma-

terial for the tenth grade year is chosen from the field of the humanities, literature, history, art, we keep in mind constantly the socialized point of view of the year before. In addition to the main unit, each member of the group studies mathematics, French, and Latin or physiology.

In the organization of historical material, Greece is selected as a starting point because of the unique quality of her civilization. In the first section of work in this field, the aim is to suggest in broad outline aspects of the heritage of historical Greece, chiefly as background. Thus we attempt to picture Aegean civilization, first in the brilliant Cretan period revealed through the archaeological discoveries at Knossos and then in the mainland centers of Mycenae and Tiryns. Then we follow the gradual infiltration of the Achaean peoples, their adoption of Mycenaean culture, and their exploits at Troy. We suggest that the very severity of this struggle may have sapped their energies to such a degree that they were unable to withstand the invading Dorian hordes.

We next concentrate upon the *polis*, city-state, indicating its evolution in Sparta and Athens; in both places we follow the organization of society and the government. For obvious reasons Athens is our special center of interest; here we stress the changes wrought in the *polis* by three sixth century figures—Solon, economic reformer and lawgiver; Peisistratus, enlightened tyrant; Cleisthenes, the creator of a democracy. In the great contest between East and West, between Persian Empire and Greek *polis*, we follow the historical narrative from the Ionian revolt to the victories of Plataea and Mycale. In discussing fifth century Athens from the conclusion of the Persian wars, we study especially the steady evolution of democracy. Other topics include imperialism, achievements in the realm of the arts (characteristics of the Acropolis temples and the work of the potters in the Cerameicus), the Panathenaia as a typical civic festival. Members of the group read supplementary material on different phases of Athenian life. In conclusion we study the causes of the Hellenic World War and the changes in fourth century Athens after the exhausting struggle.

Rome serves as our second theme both because of the key position which she occupied in the opening of the world and because of the significance which her civilization can have for the present.

After the briefest background study of the kingdom and republic, we concentrate on the Empire in the Age of Augustus; the Pax Romana, the organization of the provinces, the development of trade, the Romans' contributions as architects and builders. From later centuries we study the achievements of Trajan and Constantine, and eventually shift the scene to the East Roman Empire, Byzantium, in order to indicate the continuation of the thread of civilization there for a thousand additional years. Our only specific study in Byzantine history deals with the brilliant achievements in law and architecture during the reign of the Emperor Justinian.

Charlemagne and the Church is the third unit of the year. We concentrate on the Franks, who created the first effective empire after the invading hordes had destroyed the Pax Romana and whose empire served as transition between ancient and medieval worlds. After indicating the condition of affairs under the Merovingian kings, we pass on to Charlemagne, the great Frank, considering those phases of his career which held special significance for the future—his *missi*, his interest in education, the spread of Christianity, and his coronation at the hands of Pope Leo III. Out of the new conditions we follow the ways by which the Church gradually grew to be the most important single institution, with tremendous influence in the development of western Europe. We study the ways in which the Church touched the lives of numberless people for centuries, the relationship between Emperor and Pope, the effects of the crusading movement, the culminating power under Innocent III, and the influence of the Church upon the arts.

In conclusion we consider changes in the medieval life of Europe. A few of the principal developments include the evolving towns, the interweaving relationships of trade, the rise of universities, the growth of humanism, and the coming of the Renaissance to Italy. We are concerned with adventure beyond the Mediterranean—ideas about the shape of the world, the strong connection between Europe and Cathay in the thirteenth century, and the progress toward the West initiated by Henry the Navigator. Such an emphasis leads directly to the Great Age of Exploration and the Renaissance.



To make such a program effective, we take as a prime consideration the reinforcement of ideas through as many channels as possible. To that end, maps and graphic material are introduced wherever they can contribute. Individual topics play their part. The arts of a civilization (architecture, sculpture, painting) help to an understanding of the people who produced them. For instance, a visit to a modern silversmith helps clarify the craftsman's point of view, specific buildings in the region show the way in which inherited architectural styles have been used successfully today, a visit to a stained-glass studio makes vivid another art, and a priest of the Catholic faith explains the development of the medieval Mass to the group.

In the selection of English material, the aim is to choose types of literature which have enriched the stream of our inheritance. Moreover, this material must have literary value in its own right. Many times the correlation between English and history is very close, but this relationship is never forced.

The first part of the time is spent on Greek literature, including Homer, examples of lyric poetry, selections from prose writers, and three Greek plays. We read the *Iliad* as an epic narrative and as a record of primitive social history. Each member of the group reads also a part of the *Odyssey* if she has not read it before. The plays *Prometheus Bound*, *Antigone*, *The Trojan Women*, are studied in the light of Greek dramatic conventions, the background in which they were given, and above all to appreciate the timeless thought of the plays. As examples of Roman literature are studied in Latin by practically the whole group, we do less with their study in translation.

A large portion of the year in literature is devoted to the study of early and medieval English literature. We study *Beowulf* and, as contrast, a translation of the French *Chanson de Roland*. From medieval English literature we study *Gawain and the Green Knight* as an example of sophisticated chivalric romance, comparing it briefly with *Piers Plowman*. We read Chaucer's *Canterbury Tales* for his studies of character, and his shrewd and humorous attitude toward human nature. The stories are analyzed for narrative techniques and for their aptness to the times. In conclusion we take up the miracle plays *Abraham and Isaac* and

*The Second Shepherd's Play* and the morality play *Everyman*. These are compared in techniques and approach with selected medieval folk ballads.

Late in the year three weeks are devoted to individual source topics in medieval social history. The working time in both history and English is used, and class periods are frequently devoted to individual help in the library or to conferences on "first drafts." The topics are designed partly to give experience in the use of literary tools. For this reason stress is laid on the resources of a library, card catalogue, indexes, and encyclopedias, and on how to carry out a simple piece of historical research.

Throughout the year there is regular practice in writing, both creative and critical. Every member of the group has scheduled conferences for correcting themes and discussing outside reading.

### *Eleventh Grade—Winsor Form VII*

The material of the main unit is drawn from history, English and French literature, art history, and astronomy. It is centered about the changing thought in the sixteenth, seventeenth, and eighteenth centuries, through the revolutionary period at the end of the eighteenth century, and has as its core the development of eighteenth century liberalism. In addition to this closely woven unit, each girl either chooses another language, in addition to French (this may be Latin IV, the study of Vergil; or it may be a first year of German, Spanish, or Greek), or elects Mathematics III, which is the completion of the advanced algebra. If she is an able student, she may choose to do both. If a student is qualified for serious special work in music or art, she may choose that in place of one of the electives.

The period studied in the main unit begins at a point which marks the change from medieval to modern, beginning with the breakdown of the regimentation of thought by the medieval Christian Church and ending with the revolution in political thinking of the seventeenth and eighteenth centuries. Social and economic conditions are studied as necessary for understanding the changes in thinking. The work in history is organized around the following topics: Survey of the World in 1500; Breakup of the Medieval Church; the Reformation and Counter Reforma-

tions; the Rise of Capitalism; the Emergence of Modern States; the Causes and Development of the Age of Autocracy; the Causes and Development of the Age of Revolution.

The study material for these topics is selected from a wide variety of primary and secondary sources. Each girl keeps a record of her reading and of class discussions. The presentation of oral and written reports is an important part of the work. Training in this is carried on with the English teacher.

The work in English literature covers much the same period as the work in history—the sixteenth, seventeenth, and eighteenth centuries. We do not intend this to be a survey course, but a detailed and thorough study of a few significant writers. The knowledge of the period and the understanding of the ideas, developed in both history and literature, is sounder and more vital because of the interplay of the material. The main objective in the study of literature is the clear and appreciative understanding of the author's thought, and that is not lost sight of in the historical interest. As an introduction to the first period, the class studies More's *Utopia* for its criticism of the past and its warning for the future. The literature study then falls into four main divisions:

1. The Age of Elizabeth, with its intellectual independence and enthusiasm for a national literature. Two plays of Shakespeare and one of Marlowe are studied, as well as the Elizabethan lyrics.
2. The Age of Milton, with its religious and intellectual freedom through individual ideas of reform. This period concentrates on Milton, his minor poems, four books of *Paradise Lost*, and his *Essay on Education*. From the late seventeenth century, the class reads selections from Bunyan and Pepys.
3. From the early eighteenth century, with its interest in reason and form, the class studies selections from Swift, Addison, Steele, and Pope.
4. From the late eighteenth century, Boswell's *Johnson* and Jane Austen's *Pride and Prejudice* are studied intensively and extensive reading in the poets and prose writers is carried on. Throughout the year modern parallels for literary forms and ideas are studied and discussed.

In French a survey of the history of civilization in France in the same centuries is given. The lectures and discussions are all in French; written résumés of the lectures are made; reports on reading are given in French. The reading includes selections from the classical poets, from Montaigne, from Malherbe, from La Fontaine; careful study of Corneille's *Le Cid*, Racine's *Andromaque* (abridged), Molière's *Le Bourgeois Gentilhomme*. In the final term, when the Revolution is being studied in history, selections from Voltaire's *Jeannot et Colin* and Rousseau's *Emile* are studied in French. An effort is made to develop the students' judgment and critical sense and to help them appreciate more fully the humanizing and artistic elements not only of French but of any literature. The connection between English and French literature in these periods is made vivid by the close cooperation of the teachers in making comparisons. The students are also given some review grammar and composition, as it seems necessary to do this to keep up the proficiency in speaking and writing French.

Believing that important parts of the study of any culture or era are its art and its science, we make art history and an introduction to astronomy parts of our study.

The approach in art history is made through such questions as: What were the creative men of the period trying to do in painting, in architecture, in sculpture? What interested the people for whom the artist created? In what ways are these arts expressive of the civilizations which produced them? What in this work of art is essentially fine? The study begins with such masters of fifteenth century Italy as Brunelleschi, the architect; Masaccio, the painter; Donatello, the sculptor. Through pictures, slides, and trips to the museums a limited number of the artists from each country in the historical period are studied. Careful notebooks are kept and the discussions, trips, and lectures help develop aesthetic appreciation.

We have introduced some elementary work in astronomy in this year, both because the sixteenth and seventeenth centuries were the great periods of astronomical discovery and the thinking of the times was changed because of the discoveries, and because we believe that astronomy has fine possibilities in starting a

permanent satisfying interest and that some knowledge of it often awakens an interest in modern philosophy and scientific thinking. The work is intended to give an idea of the place of the earth in relation to stars and other heavenly bodies, to show how our present conceptions of the universe have developed and the evidence on which the conceptions are based. This includes a brief study of the theories of the ancients; the establishing of the heliocentric theory of the solar system in the sixteenth and seventeenth centuries (Tycho Brahe, Kepler, Copernicus, Galileo, Newton); the discovery of the outer planets; a descriptive study of the solar system; the evolution of the solar system; the astronomical instruments (telescope, spectroscope). The approach has varied in the different years, but in general some direct observation of the sky at night (the school is equipped with both reflecting and refracting telescopes) has familiarized the students with the constellations, the planets, the first-magnitude stars, and the changes in the sky in short periods of time. As far as possible the place of observation, experiment, and measurement has been emphasized.

In this year, especially, we train in composition for clear expository writing. The spring before, the students chose subjects that have special interest for them either because they are in the field they expect to work in later or because a subject represents a special interest, avocation, or hobby which the girl has already done something with and could profitably give more time to. The students gather material by reading and note taking; by interviews; by special visits to places of interest, to museums, or to industrial plants during the summer. The outline is made and the writing, which is the composition work for the first term, is done between September and the Christmas holidays. The papers are rigorously criticized by the instructors, revised, corrected, and put in good form by the students before final acceptance. This work has value in fostering independent interests and in training for organization and presentation of ideas in a fairly finished form; the value is noted in all the subsequent work. The shorter pieces of writing due every week after the first term sometimes grow out of the work in literature and history; sometimes are descriptions, stories, poems, and scenes from contemporary life.

In all writing we aim, this year especially, toward increased accuracy and clarity.

### *Twelfth Grade—Winsor Form VIII*

In our final year the main unit includes aspects of history, literature, and scientific thinking of the last one hundred and fifty years. It has seemed desirable whenever possible to "complete the circle" and to relate the work to that done in the ninth grade but with the emphasis differently placed. In general the period studied in history, English literature, and French literature is the same—the nineteenth and twentieth centuries. The science for most of the group is biology, but physics or chemistry may be substituted for it by the student primarily interested in mathematics and science.

We have tried different approaches in the work in history. The emphasis has usually been on problems of modern international relations, although the emphasis has shifted from year to year to meet what appeared to be the most pressing questions of the times. The course has not been a chronological survey but a problem approach. One year we started with the Treaty of Versailles as a product of the nineteenth and twentieth centuries and, from that starting point, traced back the lines of development that produced the treaty. This meant studying the last one hundred and fifty years in at least four different ways: the problems of industrial development; the problems of nationalism and imperialism; some problems in the growth of liberalism; the rise of socialism, fascism, and communism. The approach made for close analytical thinking and familiarity with different kinds of historical material.

In 1940–1941, with the rapid change which had come in world outlook, we thought it wise to shift our emphasis on the study of modern civilization as it has developed in Europe and the United States in the last one hundred and fifty years. Emphasis is placed on the federal form of union developed in this country and the democratic principles formulated by Thomas Jefferson; the French Revolution and Napoleon's threat to the entrenched European system; the attempt by the reactionaries through the Congress of Vienna to re-establish the old order, resulting in

the aftermath of popular revolutions; the development of nationalism and liberalism; the effects of scientific discovery and invention in revolutionizing the thinking and living of the average man in the last half of the nineteenth century; the social theories which developed to meet these new conditions and the actual attempts at social reform; the period of imperialism as a natural outcome of the Industrial Revolution, with the conflicting interests and alliances of the great powers finally causing the World War of 1914; the peace settlement of 1919, with the first practical attempt at a world organization for peace through the League of Nations; the communist and fascist types of dictatorship compared with democracies as a way of solving our modern problems; the breakdown of collective security, leading to the second World War; and, finally, a discussion of possible plans for a durable peace.

The attempt has been made to vivify the study by the use of source material especially in the American field, by close correlation with the English literature of the period and more occasionally with the French, as well as by a combined project with the work in biology to clarify Darwin's theory of evolution. With oral and written topics the work in history and English is always a joint enterprise. In studying the American Civil War and Abraham Lincoln, although secondary material is used to clarify the whole picture, the emphasis is on source material. Two articles have been written—supposedly to appear in a newspaper of the period—from a Northern or a Southern or compromise point of view, stimulated by some event or speech, one in the pre-war period and one during the Civil War. An attempt to view the nineteenth century through the lives of political and literary figures has produced topics on Louis Napoleon, Mazzini, Garibaldi, Cavour, Bismarck, Alexander II, Disraeli, Gladstone, Peacock, Mrs. Edgeworth and Mrs. Mitford, Jane Austen, Sir Walter Scott, Byron, and a topic on the *English Reviews*. Long topics have been written on some problems produced by the Industrial Revolution, and are being given to the class at the time the particular subject seems most pertinent. There are topics on Imperialism, Egypt, the Philippines, China, India, and Ireland. Other topics are: Organized Labor in the United States; Trade Union-

ism in the Soviet Union; Child Labor, Immigration, Socialized Medicine, and Soil Conservation in the United States; Trade Between the United States and the Argentine; and Federal Union as a Possible Organization for Constructive Peace.

The literature and composition for the year is taught by an English teacher who is present in all the history discussions. The material studied in literature is that of the last one hundred and fifty years, and the consideration of literature as a reflection of an era as well as a timeless expression of the spirit of man is inevitable. The significance of oral and written expression is stressed in the attempt to draw from as well as to enrich other subject fields. The early nineteenth century poets—Wordsworth, Coleridge, Keats, and Shelley—are studied intensively. Outside reading is chosen from the journals and letters of the period. Novels about the period are read as extensive reading. The developments in the essay and in drama are treated as fully as possible in the time available. Plays by Ibsen, Shaw, and Galsworthy are studied for the later period. These plays are contrasted with a Shakespearean play chosen for intensive study. The work in the novel stresses especially Hardy and Conrad. Selections from Tennyson and Browning are studied at appropriate points in the last part of the year. Modern American novels, poems, and essays are included in outside reading. Written or oral work in all fields is for effectiveness and correctness of expression in English.

The work in French is aimed to give a general survey of the trends and ideas in France during the nineteenth century, to define the role of certain outstanding authors in the development of literary and social life, and to encourage rapid and intelligent reading of a considerable variety of prose and poetry. Both lectures and discussions are conducted in French. About once in two weeks students prepare written work in French. In the early Romantic period, selections from Rousseau and Madame de Staël, Chateaubriand, and Hugo are studied; in the later periods, Balzac, Flaubert, Daudet, France are read; selections of French poetry from the nineteenth and twentieth centuries are studied intensively.

The importance of scientific thought and scientific method in the nineteenth century comes up constantly in the year's study.



Science and history teachers contribute freely in one another's fields. The science courses in biology, physics, or chemistry are full units of college preparatory laboratory work. In biology, the science chosen by the majority of the Eight-Year Study group, the aim of the course is to present a survey of the plant and animal world with respect to form, structure, and function. The contributions of the biological sciences throughout the world in the nineteenth and twentieth centuries, taken up in connection with sound laboratory work as well as from the reading and study of some of the great scientific documents, deepen the understanding of such matters as the effect of the theory of evolution on political thought; illuminate discussions of "war as a biological necessity" theory, or the "survival of the fittest" theory, and its effect on nationalistic doctrines. It has been an advantage to have contributions from three fields in science, the physics and chemistry as well as the biology, to the thinking of the group.

In reviewing the outcomes of our new plan course of study, we are aware of the increased vitality in learning which has resulted from having established in practice the interrelations of what is being studied. The students' growth in intellectual maturity and power of self-direction is marked, on the whole, by their eagerness to push farther, especially in college, the lines of interest started here.

# WISCONSIN HIGH SCHOOL

MADISON, WISCONSIN

Wisconsin High School is a six-year secondary school operating under the Board of Regents of the University of Wisconsin. It is used as a practice teaching center for the School of Education, and the apprentice teachers assigned to it frequently outnumber the pupils. The school building, located on the university campus, was erected in 1913, when it was anticipated that an additional wing would be constructed within a few years. This addition was never made, so the plant is incomplete and badly overcrowded.

The school enrolls some 310 pupils, and graduates between 50 and 60 each year. Over 90 per cent of these enter college—usually the University of Wisconsin. Pupils come from the city of Madison, two residential suburbs, and the surrounding farm area, and therefore lack the community of interests which frequently unifies a school. About one-third of the parents are connected with the university, somewhat over a third are engaged in business and professional activities, and less than a third are farmers and industrial workers. Almost all are native white.

Pupils in grades VII and VIII pay \$30 a year tuition; in grades IX and above, \$40. This includes an activity fee which admits pupils to school events and supports the school annual and the school paper. About one-fifth of the pupils receive scholarships which cut down tuition to \$10 a year and require them to give 36 hours a year for experimental work.

The school has had five changes in administration during the Eight-Year Study, and most of the teachers who initiated the experimental program have since left the school. These changes seriously interfered with the development of the experimental program. In addition, the heads of departments are members of the corresponding departments in the university, have permanent tenure, and are leaders of professional associations in their fields. Their professional status depends in part on the strength of the

program which they can develop in their respective fields. Within the usual divisions of the curriculum they have maintained a high level of scholarly achievement and progressive practice. When the experimental program threatened to supplant these fields of study, they could hardly be expected to lend their enthusiastic support. Consequently the new program steadily lost momentum as those who initiated it left the school, and in 1939 it was abandoned by faculty vote. Parts of it survive in biology, in social studies, and in industrial arts, but hardly enough to give these fields a distinctive emphasis.

This does not mean that experimentation has been abandoned; it now goes forward within the boundaries loosely established by the usual subjects. Nor does the failure of the new program to survive in this setting mean that a similar program might not succeed elsewhere. It means only that when a university school is attached to the parent institution not by a single umbilical cord, but department by department, an experimental program which flouts all departments must have better luck than this one to survive.

### *The Experimental Program*

Every influential commission on the secondary school curriculum, from the one which produced the "Cardinal Principles" in 1912 to the Thayer Commission in 1940, has declared that the school's job is to help orient and adjust boys and girls in certain "areas of living," such as work, leisure, citizenship, family membership, health, and the like. Each commission names different areas, or gives different names to the same areas, but the approach remains the same.

The usual effect of these pronouncements is to renew the search for what the present subjects may contribute toward orientation and adjustment in these areas. Many educators suspect that the sum total of these contributions, even if they were not imaginary, would not equal the job to be done. Yet, so far as we are aware, no school reorganized its program on the basis of these "areas of living" until Wisconsin High School did so in 1933.

It set up new courses in four areas: community living, health, vocations, and leisure. The units included in these courses pretty

well covered the areas named by all curriculum commissions. In addition, the vocations course included Orientation to Life in College, on the ground that none of the pupils in the experimental program would enter a vocation directly upon graduation, but only by way of the university. It was a part of their job, therefore, to explore the university offerings and to prepare themselves to make the most of this experience. Whether or not this reasoning was sound, some orientation to college life was needed, and the vocations course was a convenient place to offer it.

In the beginning the "leisure" course was largely an arts program. This did not square with pupils' ideas of how leisure time is actually spent, so such activities as contract bridge, social dancing, and motion picture appreciation were introduced. These aroused such a storm of protest in the community that the whole "leisure" program had to be abandoned. No one associated with this venture remains on the faculty, so a report on what it attempted to do is not included.

Each of these four "constants" was planned to occupy four periods a week in grades X, XI, and XII; but the time was soon reduced, so that the four constants together came to occupy approximately the time usually devoted to a core course. In addition, pupils took the regular courses in English, foreign languages, and mathematics and had some time left for other electives.

Pupils were allowed to elect the experimental program with the consent of their parents. In certain periods of stress the enrollment dropped to as few as 13 pupils, but normally a full section was maintained. Some controlled studies of development were attempted, but when the program lost its momentum they were never completed. Some data on progress are included in the reports which follow.

### *Community Living*

In the beginning the *American Observer* was used as a springboard into discussions of current social problems. After a while this proved hit-or-miss and choppy to handle, and not very close to pupils' real needs. There was too little continuity in the program to sustain interest and to build a sense of achievement.

Out of this grew a series of units on the 1936 Presidential

Campaign, Consumer Cooperation, Neutrality and the Good Neighbor, Social Security, Individual Pathology in Community Life, the Worker, Taxation, Leadership and Followership, the Family, Conservation, Public Opinion, etc. In connection with each problem the various social sciences were explored for relevant principles or ways of analyzing the problem. Thus the unit on the Presidential Campaign took up the history of the political parties, the economic issues of the campaign, the sociological aspects including class conflicts, the proposed governmental reforms, the psychology of propaganda techniques, the geography of the campaign (prediction maps), the philosophical issues, and public service as a career. While none of these areas was explored very deeply in any given unit, their recurrence throughout the year in connection with extremely varied problems demonstrated their connection with current issues and yielded a fairly respectable acquaintance with their methods and possible contributions. As an alternative approach another group took up each of the social sciences in turn and explored one illustrative current problem by the methods of each science. The aim of this year's work was a bird's-eye view of what the various social sciences are about, and how they operate.

The psychological basis of this organization of the course, however, was probably a regression. Most of the highly experimental courses of the Eight-Year Study, especially those taught by young teachers, followed this pattern. The first year represented a bold attempt to ignore the usual organization of the content of a field of study and to face real problems in this area of living. There was usually some vagueness as to what problems would be attacked and how these problems would be handled; that was to be planned as one went along. As one might expect in a first attempt, this usually worked very badly. The second year usually represented a return to familiar guide lines, often on a grand scale. Thus this course attempted in one year a synopsis of all the social sciences. Pupils at first rejoice in the return to definiteness and organization, but gradually fall into the lethargy which seems to beset all highly organized classroom work. Only in the third year does the new course begin to come into its own. This cycle seems inevitable. The only moral to be drawn is that highly

experimental courses should probably be allowed at least three years to prove their worth.

While this second organization of the course was a decided improvement over the first, it still lacked a central, integrating idea. This idea was found in the development of a social philosophy on the part of the pupils.

Such an idea can mean as little or as much as one chooses to put into it. In this case a great deal went into it. The course did not merely teach the usual content of the social sciences on the ground that it all contributed to a social philosophy. Instead, every effort was made to discover how pupils thought about events which had social implications; to find the errors, blind spots, and inconsistencies in their thinking; and to cultivate a genuine desire on the part of the pupils to think more clearly. It was assumed that every pupil already had some sort of social philosophy or point of view; he needed only to discover it, to analyze it, to test it, to rectify it, and to use it. Every situation discussed in class was an opportunity to discover what ideas about it existed in the minds of pupils, and how well these ideas would stand up under critical examination. Thereafter the primary emphasis of the course was upon ideas—upon ideas in pupils rather than in books, and upon the relationship of these ideas to facts, to other ideas, and to action.

Many devices were evolved to get at these ideas. One of the most successful was called "the spontaneous anonymous approach." Some problem which had come to the notice of the group was presented. No time was given for discussion. Pupils wrote their immediate responses to the problem anonymously on slips of paper. The teacher did the same. All these reactions were copied by a committee and mimeographed for distribution to the class. They constituted the raw data for discussion. They included many significant facts, notions, preconceptions, errors, prejudices, half-truths, etc. No personal considerations entered into the discussion of these anonymous statements; one could slay the pet notions of friend or teacher without recrimination or remorse. After the initial ideas about the problem in the minds of the group were thus exposed and clarified, the problem was studied thoroughly. This exercise often elicited the comment,

"Look at what we didn't know—or knew what wasn't so—before we attacked this problem!"

The anonymity of this approach was its chief virtue. It gave pupils courage to express their convictions. It freed the opinion from the prestige effect (positive or negative) of the person who expressed it; the opinion was discussed on its own merits. It permitted the teacher anonymously to call the attention of the class to considerations and points of view which might not have occurred to them, without the risk of having his ideas accepted without question. And the coldness of type had a calming influence on those who would react emotionally to these arguments if they were presented orally.

This form of exercise yielded returns in proportion to the depth of the teacher's analysis of the initial opinions. When the analysis was carried far enough to reveal the basic assumptions and attitudes of the group, one knew where to take hold in the ensuing discussion and investigation.

The "Community Living" course was further unified by concentrating upon the city of Madison as the "textbook." Trips were made to every point of interest in the city which had a bearing on social problems and processes: the state and city government; the courts, prisons, housing, parks; the principal industries, etc. Pupils were sent off on their own to interview adults who could give them the information they needed in their various investigations. Speakers from every walk of life were brought in to contribute their information and point of view to the problems under discussion. After three years in this program it was hoped that the pupils would know their city in somewhat the same way that the Lynds knew "Middletown."

Contacts with the local community were supplemented by radio programs and motion pictures. The "Town Meeting of the Air" regularly received comment, and an effort was made to have pupils listen to and report upon all radio programs of outstanding social significance, such as the major campaign speeches, messages to Congress, international addresses, forums, the "University of Chicago Round Table," and the like. Certain episodes from motion pictures were used as bases for discussion; e.g., from *Ceiling Zero*, *The Plow That Broke the Plains*, *The River*, *Grapes*

of *Wrath*, *Thunder over Mexico*, *Blockade*, and the "March of Time" series. In addition, there was the usual wide reading in newspapers, magazines, pamphlets, and books, and a number of individual conferences.

In keeping with trends throughout the Eight-Year Study, the Community Living program became more and more preoccupied with the discovery, analysis, and treatment of individual needs, interests, and problems. While the major emphasis remained upon the development of a social philosophy as the common goal for all pupils, more attention was given to the particular difficulties of each pupil in advancing toward this goal. This concern brought in a new unit on social psychology and led to a great deal of testing, recording, and conferences. The later work was extremely conscious of objectives and of individual rates of progress toward them.

All of the tests related to social sensitivity prepared by the Evaluation Staff were administered, and superior results were indicated; the same was true of the *Time* Contemporary Affairs tests. Many other objective tests on various aspects of social thinking and attitudes were prepared by the teacher, and revealed a heightened awareness of social issues and increased competence in analyzing them. Teachers reported improvement in independent research and in study skills; more tentativeness, skepticism, and suspended judgment in controversial areas; greater immunity to malicious propaganda; a genuine interest in developing a clear and consistent social philosophy; and a fine *esprit de corps*. Parents commented on the practical usefulness of the course, their children's interest, their participation in discussion in the home, and the development of a sense of responsibility. Pupils were nearly unanimous in liking the course and in wanting it to be extended to the whole school, and they believed that it prepared them better for independent work in college. The community was very much interested. Civic leaders were very cooperative; other schools wished to develop similar courses and wrote in for suggestions; newspapers and community clubs were enthusiastic about the great amount of attention devoted to the local community. The course can therefore be regarded as a failure only in its failure to survive. It has been supplanted by



courses in history, organized on a chronological basis but taught with more attention than is usually given to their educative effect upon pupils.

### *The Health Constant*

The general plans of the health constant may be summarized as follows:

1. The problem method is used exclusively in our teaching. Selection of the problems is based on a study of mortality and morbidity statistics and other health reports. National, state, and local needs are all taken into consideration. Physical examination reports of the pupils help determine the choice of problems.

2. The problems are solved by studying the underlying scientific principles. We adhere closely to scientific method in teaching.

3. Understandings of scientific principles are attained by choosing subject matter from related basic sciences. In this correlation the instructors from other departments are frequently drawn in to teach phases of the work if they can handle it more effectively.

4. The health director aims to establish strong desirable attitudes on the part of the pupils, causing them to initiate and establish health habits which will help them solve the problem as it affects them.

5. In order to establish such habits, it is essential to enlist the cooperation of other teachers and parents.

According to investigation reports, the following need emphasis. In their arrangement, it is to be noted that the earlier units center around problems involving personal hygiene; then, as the pupil becomes more mature in the senior year, the units are centered around home and family, community and racial hygiene problems, placing ever-increasing responsibility for correct behavior upon the learner.

1. Adjustment to One's Daily Routine (including both physical and mental activities, rest and sleep, and budgeting of time and energy).
2. Correct Posture.
3. How Life Goes On (plant and animal reproduction are

used as an approach to human reproduction; the meaning of adolescence is explored).

4. Sanitation—Personal, Home, and School (including methods of maintaining a clean and healthful skin; safe soaps, cosmetics, etc.; exposure of false advertising).
5. Proper Diet and Good Eating Habits.
6. Maintaining Efficient Digestion and Elimination.
7. Care of Foods (in the home).
8. Intelligent Purchasing of Foods.
9. Intelligent Temperature and Humidity Regulation (ventilation, clothing, bathing, etc.).
10. Disease Prevention (the prevention and control of epidemics, reliability of professional services, etc.).
11. Mental and Emotional Hygiene (includes study of stimulants and narcotics, patent medicines, etc.).
12. Heredity (family and racial problems).
13. Community Health and Sanitation:
  - a. Milk, meats, and other foods—sanitary production, distribution, and marketing; adulteration.
  - b. Pure water supplies.
  - c. Proper sewage and garbage disposal.
  - d. Clean streets and public buildings.
  - e. Better housing conditions.
  - f. Sanitary personal service shops—barbershops, beautyshops, etc.
  - g. Sanitary restaurants and hotels.
  - h. Sanitary bakeries, confectioneries, etc.
  - i. Sanitary public swimming pools and bathing beaches.
  - j. Duties of the boards of health in all public health problems.
  - k. Rules and regulations concerning the above concerns; needed changes.
14. Prevention of Accidents and First-Aid Practice (to be stressed throughout the course whenever applicable to the subject matter).
15. Exaggerated and False Advertising (to be stressed in units wherever appropriate; repetition, we hope, will bear its fruit).

Three factors were stressed strongly in approaching the problems to be studied:

1. Arousing desirable attitudes.
2. Presenting facts in a scientific fashion.
3. Helping pupils meet everyday life situations.

In order to make health teaching functional, it is very essential to arouse desirable attitudes on the part of our pupils. Attitudes must be strong enough to cause them to want to initiate specific health habits, and to furnish them with enough drive to establish them. The degree of success along this line seemingly depends upon two factors—the personality of the director and the methods of teaching.

The successful director is not only an enthusiastic leader of the class as a whole, but one who takes a personal interest in each pupil. After the physical examination reports have been turned in, for instance, he will study them carefully. Concurrently he will observe the daily habits of his pupils, and will arrange for personal conferences to study the prevailing attitudes and habits of each child. He will then plan his class teaching accordingly, and develop understandings of needed phases of healthful living, so that each pupil, with a little personal direction, can and will work out methods of improvement in his daily activities. If the pupil is sufficiently impressed with the need for changing his habits, he will find means to do so.

An attempt should be made to present data in the form of scientific truths so effectively that the child will be convinced. Frequently reports of laboratory studies can be found which will be very impressive. In other cases, laboratory experiments can be set up in class, the pupils themselves participating, observing, and noting results. One such experiment was set up in connection with studying the effects of noise on concentration. The health teacher secured the assistance of the testing director of the school system. The class members willingly subjected themselves to reading tests given three days in succession under varying conditions: one in a quiet room, one in a room next door to a band practice, and one in a room in which five or six typewriters were being used. The test results were noted with much

interest and caused many pupils to change their study room conditions at home.

The director should choose problems that are of everyday significance, problems that touch not only the child but the homes and the community. For example, in one class there happened to be two boys whose physical examinations revealed quite serious heart trouble. Both boys had been participating in unrestricted fashion in football and basketball. Through the health class, with the cooperation of their respective doctors, physical education teachers, and the parents, the boys were informed tactfully of their condition, and with the boys' cooperation a program of activities in and out of school was worked out suitable to their defects. Since their activities in games had to be restricted, something of interest had to take their place. So, in connection with the study of leisure activities in the health course, these boys were acquainted with types of activity that demand a limited amount of physical exertion and that might be of interest to them now and also later in life. One of them finally chose photography and the other stamp collecting. Both boys read extensively about the possibilities of their respective choices. The one interested in photography has begun to take instruction in the art. It may possibly result in his vocation.

Another example of helping pupils to meet life situations occurred in connection with learning to choose foods intelligently. The health director, after having taught the basic principles of well-balanced menus, ate with the pupils at a table in their school cafeteria for a period of two weeks. Each child, after having chosen his menu, had to justify his choice on the basis of what he had learned. Criticisms by other pupils and teacher were received good-naturedly, and all seemed interested in prolonging this little game.

If the enrollment in the health classes is too large for the teacher to employ a similar method, the same results can be attained by securing from the cafeteria manager a list of the foods to be offered the following day, together with the price list. Each child then chooses on paper his foods in compliance with his understanding of balanced rations, taking into consideration

how much money he has to spend for food, what he would bring from home in the form of sandwiches, etc., and, of course, also taking into consideration his own state of health—whether under or overweight, anemic, etc. Each day, for a definite period of time, the teacher and class criticize four or five of the planned menus.

Under the auspices of the North Central Association, the health constant was tried out in nine cooperating progressive high schools in and about Chicago and in southern Wisconsin. The director of the health course in the Wisconsin High School became organizer and director of the courses in these schools. The same general plans were followed as had been used in the Wisconsin High School. Practices that were begun in the latter were carried to completion in the four-year experiment with the North Central Association. A full report, *Functional Health Training*, written by Lynda M. Weber, organizer and director of the experiment, is being published<sup>1</sup> by Ginn and Company under the auspices of the North Central Association.

An attempt to evaluate the program was made in the following manner:

1. Written tests involving applications of principles and attitudes, such as are being developed by the Progressive Education Association.
2. Medical and orthopedic examinations and periodic rechecks.
3. Director observation, by the teacher, of health habits and practices of the pupils when they are unconscious of the observation—such as:
  - a. Choosing foods wisely or poorly in the cafeteria.
  - b. Wearing hygienic or unhygienic shoes.
  - c. Caring for skin and hair.
  - d. Studying with concentration.
  - e. Getting sufficient sleep, as shown by the pupils' alertness.
  - f. Maintaining normal weight.
  - g. Covering a cough or sneeze.
  - h. Staying home from school in case of a cold, etc.

<sup>1</sup> 1941.

4. Voluntary reports of pupils, such as:
  - a. A girl reported she has learned to like vegetables and has saved lots of money she used to spend on candy bars.
  - b. A boy reported that he placed water pans on the radiators at home and is keeping them filled.
  - c. A boy reported having changed the lights at home for reading purposes.
5. Voluntary reports of parents, such as:
  - a. Mothers say their daughters are using mineral oil instead of harmful laxatives.
  - b. Father tells how his dentist bill has shrunk since his son has gone to the dentist twice a year instead of waiting for a toothache.
  - c. A parent thanks the director for teaching her child to budget her time and energy. "I am not so worried now about her being able to adjust in college next fall."
6. Pupil and parent responses to questionnaires.
7. Pupil responses in personal conferences.

For detailed reports on these methods, as well as on evaluation of the broader aspects of the experiment, kindly refer to the North Central Association report mentioned above.

### *Vocations and College Life*

The "Vocations and College Life" constant was given one hour a week in the sophomore and junior years, and two hours in the senior year. The main objectives were: first, to study the vocational fields available to the pupil; second, to enable the pupil to make a reasonably comprehensive self-appraisal and to develop fundamental learning skills; third, to give the student as much usable information as possible on college life and to make sure that each student had definite plans for the activity he would pursue in the near future. It was intended to bridge the gap between high school and college.

In the first year it was agreed that it would be desirable to acquire a broad understanding of the following kinds of problems:

1. What types of work do people engage in?

2. What are the general requirements for successful participation in the various vocational fields?

3. To what extent and how are all workers dependent on one another?

4. What personal, educational, and social problems does the world at work present?

5. How does the schoolwork I am doing now relate to my future vocational plans, and how can I develop efficient methods for studying a vocational choice?

A committee of four pupils on each of these problems planned the course. Fourteen trips to representative business places, industrial plants, and professional offices were planned. Four speakers, experts in their fields, were to be invited to address the class. Study groups to do research were set up and sources of information to be used were anticipated. A study of the census for broad occupational classifications was made by small groups within the class. Two students living on farms gave reports on the farmer's work and his place in the economic system. Other groups tackled meat packing, dairying, forestry, minerals and mining, canning, etc.

Trips to a large dairy maintaining its own farm, to the United States Forest Products Laboratory, to a meat-packing plant, and to a large machine works were arranged by students. After the first trip the class decided it would be well to prepare a general outline to guide the person conducting the class, as the guide missed some of the points in which the pupils were interested. A few minutes of classtime were devoted to a discussion of each outline for a trip just before the class made the visit. Questions were asked freely by students on these tours, and individual summaries of each trip were written in a notebook. These notebooks were extremely valuable for class discussion and for observing what different students got from the visits.

Merchandising was investigated through visits to a wholesale distributor and to a large department store. Here the relationships between types of work and workers were explained by the personnel man. An interesting discussion arose from a remark that this store spent \$75,000 annually for advertising. It brought up the question "Who pays for advertising?" and this

discussion led to a study of cooperatives. The president of a local oil and fuel cooperative came to the classroom to explain the purpose and function of cooperatives. In connection with his talk the merits of independent stores versus chain stores and coops were debated. Students were encouraged to consider the merits of all types of business organizations and to be tolerant toward the opinions and attitudes of others.

A visit to the telephone company and the railroad roundhouse started a study of communication and transportation. Here the technological changes which are occurring were observed and their economic implications were discussed. In addition, individual students made reports on water, truck, and air transportation.

Fortunately, Madison is well located to provide for a study of state government, civil service, and political jobs. The state capitol was visited and talks by the state Director of Civil Service and the head of the Highway Commission gave pertinent information on these areas of work. The Post Office was also visited at this time. Pensions and retirement were considered in connection with governmental as well as private types of work.

In the study of professions the class listened to a talk by a lawyer and a civil engineer. The state hospital was visited when the medical profession was considered. On this visit a nurse and a doctor gave a lecture on "What a Nurse and Doctor Do in the Day's Work," as well as information on the personal and educational qualifications for these professions.

The eleventh grade stressed self-analysis as a factor in vocational choices. Batteries of aptitude tests were given and the results made known to pupils. Remedial work was provided, but the correlation of skills with the specific demands of occupations as revealed in the first unit was emphasized. It was a kind of revelation period in which the jolt of limitations—as well as the exhilaration of capabilities—was manifested. A realization of one's limitations in specific areas as well as one's capabilities is the least that a frank and honest education can give to the student.

After the preliminary testing the projected work included exercise in graphic presentation, the making and interpretation of



charts and graphs, writing for print, a social study of the modern newspaper, and a study of statistics.

It was recognized that the modern newspaper is perhaps the greatest single factor in the formation of public opinion, and in this necessarily elementary study the emphasis was on "what to believe of what you read." Students visited a newspaper office, analyzed the physical setup of the various departments, studied advertising and attempted to estimate its probable effects on the news policy of the paper, and discussed various news stories.

The twelfth grade emphasized the transition to college, for the reason given earlier. As an introductory step a survey of the possible sources of information in the community was made. Students visited and used the University of Wisconsin main library, the Wisconsin Historical Library; held class discussions on various assigned library references; and heard reports from reference sources. The state capitol was utilized as a source of information and, after visiting the building, the students organized groups to study and report on governmental agencies.

Then the students went to college. The first note taking trip to a university history class was followed by class discussion of the trip and presentation and comparison of notes. After a second and third trip a test on note taking was given and remedial work started.

At this time, too, according to our plan of constantly returning to the occupations theme of the first part of the program, the class heard an expert discuss the Chamber of Commerce and its functions. The labor unions, vocational schools, business and professional schools, museums, and the Forest Products Laboratory were handled as individual reports.

Then a highly important unit on the psychology of learning was given by a university professor. Lectures and demonstrations were given, and the emphasis was placed on effective means of studying.

Next, Dr. A. H. Edgerton of the University of Wisconsin provoked serious consideration of college courses with his lectures on the results of his ten-year study of occupational trends. The Dean of the College of Letters and Science visited the class and carefully explained the requirements of the various schools of

the college and pointed out the value and meaning of the different degrees offered by a college. Extracurricular activities in college were discussed by a member of the faculty, and university students gave a series of talks on campus politics and sororities and fraternities. One year the students even heard a boy who had "flunked out" of the university tell his reasons for his failure.

The study of occupations as set forth for the tenth grade has been carried over in part to regular classes in industrial arts in grades IX to XII. The present courses in social science also include a portion of the materials developed for the tenth grade. The work developed for the eleventh grade is not now being used in the school curriculum. Recommendations for an elective course to include selected units from this course have been made. A part of the unit developed for grade XII has found a place in the twelfth grade English course. Students in the twelfth grade also voted to meet outside of regular school hours to study a six-hour unit on Psychology and Learning.

The time devoted to this constant (one hour per week) was too meager for anything but a superficial survey of a limited range of occupations and a self-analysis limited to academic qualifications. The unit on Orientation to College was placed in this sequence only for convenience, and is usually offered elsewhere. Hence the constant does not claim to have offered anything like adequate preparation for that part of living which centers in an occupation, to have satisfied adolescent interests in this area of living, or to have extracted from this area all that it can contribute to a liberal education. At best it may be regarded as a gesture toward including some mention of "work" in a program of "Education for Living." Within these limitations, however, the responses of pupils indicated that this constant at least gave them a taste of an area of living in which they are vitally interested, caused them to submit voluntarily to a barrage of tests and remedial drill, motivated a great deal of work of academic as well as vocational significance, and lent itself readily to pupil planning and control. It is hoped that in better times the constant may be revived and developed further.



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